

The Mining Journal, RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1433.—Vol. XXXIII.

LONDON, SATURDAY, FEBRUARY 7, 1863.

(WITH SUPPLEMENT) (STAMPED.....SIXPENCE. UNSTAMPED.....FIVEPENCE.)

MR. JAMES CROFTS, SHAREBROKER,
No. 1, FINCH LANE, CORNHILL. (Established 18 years.)
Mr. Crofts transacts business in the way of PURCHASE or SALE, in every description of stocks, but particularly in BRITISH MINES, in no case departing from the position of a broker, at net prices. All orders must be with the utmost punctuality and seal, and advice given as to the nature and eligibility of INVESTMENTS, when required, EXCHANGES OF STOCK effected on the most advantageous basis, subject only to one commission.

RECOMMENDED FOR SALE: 100 Great Caradon, West Trevelyan, West Par Consols, Trumpet United, Long Rake, Bryn Gwlog, Sithney and Carnmeal, Central Miners, North Trevelyan, Cefn Cileu, New Caradon, North Crofty, East Carn Brea, and Okef Tor.
Business in the gold shares, West Clogau, and in Quebrada copper, in large numbers.
OKEF TOR.—A great improvement. Two lodes, worth 10 tons of ore per fm. each. Quality of portion of ore, £20 per ton. Will become the richest mine in the district.

COPPER fell this week £8 per ton. The "Reason Why" is difficult to give, but a surmise is that the move is altogether artificial, to adjust some heavy hypochondriacs of the metal; and if so, its influence on copper mine shares (especially the larger mines) will be quite temporary. Holders of such shares should not only pause before selling, but purchase at the depressed price, without waiting the reaction, 1, Finch-lane, February 6, 1863. JAMES CROFTS.

MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.

JAMES LANE has FOR SALE, at net prices:—10 Alfred Consols; 25 British Tin and Copper, £1; 4 Bryn Gwlog, £36; 10 Cook's Kitchen, £32½; 10 Camborne Vean, £2; 50 Crebor, £1; 5 Caradon Consols, £20; 5 Gargoll, £48; 20 Drake Walls, £23½; 20 East Russell, £34½; 10 East Devon, £18; 20 East Carn Brea, £11½; 20 East Lane, £2½; 20 East Rosewarne, £2½; 5 East Caradon, £18; 20 Furse Hill Wood, £2½; 5 Gonnams, £2½; 20 Glasgow Caradon, £4½; 25 Great Wheal Busy, £23½; 50 Great Retallack, £2½; 20 Great Wheal Fortune, £31½; 50 Hawkmoor, £5; 20 Hingston Down, £2; 20 Killy (St. Agnes), £34½; 10 Ludcott, £24½; 50 Lady Bertha, £24; 5 Margery, £21½; 20 Marke Valley, £2; 20 North Jane, £40; 20 North Miners, £12; 6d.; 20 North Wheal Crofty, £4½; 25 North Trevelyan, £4½; 10 North Phoenix, £26½; 5 Pant-y-Buarth, £8; 20 Pen-an-drea United, £21; 10 Prosper (Brea), £20; Toicarn, £24½; 10 Tincroft, £16½; 50 West Polmar, £4; 6d.; 10 Wheal Hearle, £24½; 20 Wheal Harriett, £20; 20 Wheal Grenville, £24½; 10 Wendron Consols, £12; 20 St. Just United, £24½; 15 Tolvidden; 5 Trevelyan, £17½; 10 Trevelyan, £24½; 40 Stridridge, £10; and 50 Vale of Towry, 6d.

ANNUAL MINING REVIEW FOR 1862.—**PETER WATSON'S** "Weekly Mining Circular and Share List," synopsis of Cornish and Devon Mines, &c., contains, in No. 249, vol. VI., of Friday, 2d January, a Review for the last year on the following Mines, viz.:—
Devon Great Consols. Wheal Edward.
Wheal Trevelyan. Caradon Consols.
North Down. St. Day United.
Hingston Down. Penhalls.
Bedford United. West Caradon.
Gawton Copper Mine. Wheal Buller.
East Rosewarne. Bryn Gwlog.

The "Weekly Circular" of Friday, the 9th of January, No. 250, Vol. VI., contains a REVIEW on the FOLLOWING MINES:—
Dolcoath. North Rosekear.
Cook's Kitchen. Carn Brea.
East Caradon. Clifford Amalgamated.
Great South Tolgus. Herodfoot.

The "Weekly Circular" of Friday, the 16th of January, No. 251, Vol. VI., contains a REVIEW on the FOLLOWING MINES:—
Wheal Seton. Wheal Ludcott.
East Basset. Lady Bertha.
Marke Valley. North Robert.
Wheal Margaret. Wheal Uny.

The "Weekly Circular" of Friday, the 23d of January (No. 252, Vol. VI.), contains a REVIEW on the FOLLOWING MINES:—
East Carn Brea. Great Wheal Vor.
Wheal Union. Hay's Valley Mine.
Wheal Agar. South Stray Park.
Rosewall Hill & Ransom. East Pool.
United. Rosewarne Consols.
And information on Ludcott, Calvadack, Caradon United, &c.

The "Weekly Circular" of Friday, the 30th of January (No. 253, Vol. VI.), contains a REVIEW on the FOLLOWING MINES:—
Alfred Consols. West Wheal Frances.
Wheal Tremayne. Wheal Crebor.
North Trevelyan. Wheal Hearle.
And information on Wheal Buller, Wheal Grylls, West Caradon, East Basset, &c.

The "Weekly Circular" of yesterday (No. 254, Vol. VI.) contains a REVIEW on the FOLLOWING MINES:—
Gurlyn. Trencrom. Craddock Moor.
Wheal Grenville. East Grenville. Wheal Union.
West Sharp Tor. Great Retallack. West Trevelyan.
And information on Wheal Arthur, Drake Walls, East Carn Brea, Wheal Agar, &c.

STOCK AND SHAREDEALER.—**MR. PETER WATSON,** ENGLISH AND FOREIGN STOCK, SHARE, AND MINING OFFICES, 79, OLD BROAD STREET, LONDON, E.C.
RAILWAY, JOINT-STOCK BANKS, DOCK, INSURANCE, CANAL, MINING, &c., and EVERY OTHER DESCRIPTION OF SHARES BOUGHT and SOLD at the usual rate of commission, or at net prices.

TELEGRAPHIC MESSAGES TO BUY or SELL Railway, Bank, Mine, and other Shares and Stocks, punctually attended to on commission, or at net prices for cash, or for fortnightly settlements, with advice as to purchase or sales.

Every information can be obtained on personal application or by letter, as to purchases and sales of mine and other shares, and the best investment for capital. From the close proximity of his Office to the Stock Exchange, as well as the Mining Exchange, PETER WATSON is enabled to act with promptitude on all orders entrusted to him, which at all times are carried out with punctuality, and to the best advantage of his clients.

Mines specially inspected.—Fee, £2 10s. each inspection.
Loans on good Mining Shares on liberal terms.
A Daily List of Prices sent to clients on application.
PETER WATSON being in daily communication with agents, and a long and extensive connection in different parts of Cornwall and Devon, enables him to supply at all times his friends and clients the earliest information from the several mining districts, and consequently he can operate for them quickly to good advantage in the purchase or sale of shares, especially when he receives the earliest information of any rich lode or discovery being made, or, on the other hand, a falling off in the value of lodes, &c.

N.B.—If Subscribers or Clients will refer to my recommendations during the last six or eight months, they will find the price has advanced considerably, as predicted.—100 £700 per cent. I whilst others which I stated should be sold, have fallen in price. Subscription (annual) to Weekly Circular, 21s.; single copy, 6d.

MESSRS. R. HORLEY AND CO., SWORN STOCK, SHARE, AND MINING BROKERS, 45, CORNHILL, E.C. (late of 2, Royal Exchange-buildings), TRANSACT EVERY DESCRIPTION OF MINING BUSINESS, on commission, and are in a position to obtain reliable information respecting all dividend and speculative mines.

N.B.—Messrs. HORLEY and Co. publish a Weekly Mining List, with the closing prices every Wednesday, and will be most happy to forward the same (gratis) on application.

MR. GEORGE BUDGE, SHAREBROKER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 16 years), has FOR SALE at net prices:—50 North Crofty, £29; 4 West Condurrow, £6 Margaret; 100 East Russell, £34½; 20 Wheal Seton, £27½; 20 Wheal Grenville, £25½; 50 North Down, £2; 50 Sithney Carmel, £100; 100 East Rosewarne, £25½; 5 Caradon Consols, £20; 5 Cook's Kitchen, £32½; 20 North Crofty, £24½; 4 Stray Park, £12½; 50 Wheal Harriett, £24½; 20 Hingston Down, £2; 100 Tamar Consols, £22; 6d.; 25 Ludcott, £24; 40 East Caradon, £17½; 10 Bryn Gwlog; 100 Dale, 9s. 6d.; 5 West Frances, £30; 75 Drake Walls, £23½; 5 Gargoll, £48; 4 Trevelyan, £18; 60 East Russell; 150 Vale of Towry, 6d.; 40 Gonnams; 100 North Dolcoath; 100 New Trevelyan; 200 Redmoor, 6s. 6d.; 150 Central Miners, 18s. 6d.; 100 West Union, £24½; 25 North Basset; 100 Unity, £25; 200 Buller and Basset, 2s. 9d.; 50 East Chiverton, £24½; 50 Lady Bertha, 2s. 9d.; 50 West Trevelyan, 8s. 9d.; 20 West Jane; 50 Wheal Crebor, 18s.; 60 Great Wheal Busy, £23½; 5 East Tolgus.

BUYER of 10 South Frances, £205½; 150 North Crofty, £4½; 7 Cook's Kitchen, £35; 5 Stray Park, £42.

GEORGE MOORE,
1, CROWN COURT, THREADNEEDLE STREET.
In any business that GEORGE MOORE is favoured with, in which he is the buyer, he will give CASH ON RECEIPT OF TRANSFER.

JAMES HERRON has FOR SALE the following SHARES, the prices quoted, and FREE OF COMMISSION:—

20 Alfred Consols.	20 Hingston Down.	10 Sithney Carn, £2 14 9.
20 Bilhills, £18½.	10 Holmshush (old), 29s. 9d.	180 St. David's Gold, 20s.
5 Bryn Gwlog, £35.	20 Kelly Bray.	5 Tincroft, £15 18s. 9d.
20 Bryntail, 9s. 9d.	10 Killy (St. Agnes).	50 Trimley Hall.
20 Cape Copper.	10 Linars, £7½.	60 Trevelyan, 11s.
50 Charlotte.	10 Ludcott, £2 2s. 6d.	50 Tamar, 16s. 6d.
10 Calvadack, £20.	5 Marke Valley.	50 Trumpet United, 11s.
5 Cliff Amal., £21½.	60 Moland, 3s. 9d.	10 Toicarn, £34½.
3 Cook's Kitchen, £33½.	North Basset, £23½.	10 Tolvidden, £3.
1 Cargoll, £4½.	20 Montes Aurores, £2 18s. 9d.	50 Ud. Mexican, £2 2s. 6d.
2 Carn Brea, £23.	30 Naut-y-lago.	100 Vale of Towry, 7s. 9d.
10 Caradon Hill, 25s.	30 Nova Scotia, 18s. 9d.	5 Vigna and Clogau.
20 Carn Camborne.	10 No. Trevelyan, £14½.	100 Worthing, 10s. 9d.
20 Caradon United, 35s.	1 New Seton, £14½.	10 Wheal Uny, £2 3s. 9d.
40 Drake Walls, £2 6s. 3d.	5 North Rosekear, £20½.	3 W. Caradon, £24½.
1 Devon Gt. Con., £21s.	50 North Miners, 11s.	10 Wheal Union, £2 12s. 6d.
10 East Russell, £24½.	20 No. Down, £27½.	1 West Seton, £27½.
10 East Carn Brea, £11½.	20 North Crofty, £4½.	2 Wh. Mary Ann, £16½.
50 East del Rey, £1 17s. 6d.	60 North Rhine, 7s. 3d.	10 Wheal Union, 12s. 6d.
30 East Seton, 10s. 9d.	2 Providence, £42 12s. 6d.	10 Wh. Grenville, £2 11s. 3d.
5 E. Rosewarne, £23 8s. 9d.	50 Port Phillip, 30s. 9d.	5 W. Condurrow, £4½.
10 East Grenville, 49s. 3d.	50 Quebrada, £2 1s. 3d.	30 West Trevelyan, 9s. 6d.
5 East Caradon, £17 15s.	20 Rosewall Hill, £2 8s. 9d.	10 Wheal Uny, £2 3s. 9d.
2 East Basset, £23½.	5 Rosewarne Consols, £3.	5 West Basset, £13½.
30 Fortuna, £4 6s. 9d.	40 Redmoor.	10 Wh. Harriett, £4½.
40 Glasgow Caradon Consols, £3½.	10 Rosewarne Un., 17s. 6d.	1 Wheal Grylls.
2 Grambler, £18½.	50 Stridridge, 3s. 3d.	10 Wheal Hearle, £23½.
10 Great Retallack, 11s.	30 St. Day United, 10s. 9d.	15 Wheal Pollard, 14s. 9d.
100 Gt. North. Cop., 10s.	1 South Tolgus.	20 Wheal Edward.
2 Great Fortune, £23.	50 Santa Barbara, 16s. 6d.	1 West Sharp Tor, £49½.
10 Great Wh. Vor, £2 3s. 9d.	1 South Frances, £20.	20 Wheal Prosper.
50 Great Mariba.	10 St. John del Rey, £25½.	10 West Penstruthal.
10 Gt. S. Tolgus, £2 18s. 9d.	1 Stray Park, £40.	3 West Frances.
1 Herodfoot, £20 8s. 9d.	20 So. Car. Hooper, 17s.	1 West Tolgus.
	20 St. Just United.	50 Yudanamatana, £2 12s. 6d.

Residents in the country having frequently complained of the difficulty experienced in obtaining accurate quotations, I have determined to issue a daily price-list, which will be forwarded post free to all subscribers on payment of one guinea per annum.

MESSRS. VIVIAN AND REYNOLDS, 68, OLD BROAD STREET, LONDON, E.C., MINING ENGINEERS, INSPECTORS OF MINES, COMMISSION, AND GENERAL AGENTS FOR THE PURCHASE or SALE of MINE SHARES, RAILWAY, AND EVERY OTHER DESCRIPTION OF STOCK.
Commission on share transactions 1¼ per cent. on £100 and above, and 2½ per cent. on less sums.

MR. EDWARD COOKE, SHAREBROKER,
75, OLD BROAD STREET, LONDON, E.C. Advice given on application on the merits of the various mines currently dealt in.
FOR SALE, 50 East Wheal Jane, £2 7s. 6d. nett.
Bankers: London and Westminster, Lothbury.

MR. C. POWELL, MINE SHAREBROKER,
2, ROYAL EXCHANGE AVENUE, LONDON, E.C.
C. POWELL's office adjoins the Mining Exchange, and from his long experience in and thorough knowledge of the market, he is enabled to act promptly, and to the interest of his clients, on all orders with which he may be favoured, either by post or telegraph. Mines inspected and reported on by competent agents, and advice given as to what shares should be bought or sold.—Bankers: City Bank, Finch-lane.

MR. GEORGE BATTERS, of No. 5, COWPER'S COURT, BIRCHIN LANE, DEALER IN BRITISH MINING SHARES AND OTHER SECURITIES, from long experience and intimate acquaintance with all mining stocks, can advise as to investment of capital at closest market prices.
South Caradon, East Caradon, Cook's Kitchen, Providence, Marke Valley, East Carn Brea, Union, North Crofty, North Rosekear, &c., are sound investments and good to buy.

MR. BATTERS PUBLISHES A DAILY STOCK, SHARE, AND MINING CIRCULAR containing particulars of all movements in Bullion, Foreign Exchanges, Consols, Foreign Stocks, Railways, Mines, &c., and can be had by his clients free, on application.—5, Cowper's-court, Birch-in-lane, London, E.C.

MR. BATTERS strongly recommends his friends to buy Tincroft shares for investment, as being perfectly free from speculation, will pay good interest for money, and steadily advance in price. Unions are good to buy. Hlogan Mines and North Crofty are deserving of attention. On the senseless panic in North Rosekear—these shares should be picked up. East Carn Brea were never so safe to buy as at present. Wheal Seton is the prize of the year. Shareholders in North Rosekear and other good mines are cautioned against circulars professing to give disinterested information, but strongly recommending selling out, with a view of investing in unsaleable rubbish, or some pet scheme of the poncher.—5, Cowper's-court, Birch-in-lane, London.

NORTH CROFTY.—This mine is destined to occupy a long and first place in the list of the successes of the rich Dolcoath district. A few months ago these shares were £2¼; now £4½. The mine is looking better now than when shares were £2, the returns are being largely increased, and under the able management of Capt. J. Vivin dividends will ere long be commenced. For permanence there are no mines like this extraordinary run; shares should be immediately bought. For further particulars see article in Mr. J. Y. Watson's 10th Annual Review of Mining.
5, Cowper's-court, Birch-in-lane, London, Feb. 6, 1863. G. BATTERS.

MR. LELEAN, 11, ROYAL EXCHANGE, LONDON, E.C., has FOR SALE the following MINING SHARES, free of commission:—

5 Bryn Gwlog.	100 Hawkmoor, 6s.	100 So. Car. Hooper, 19s. 6d.
5 Bryntail, 12s. 6d.	50 Kelly Bray.	2 South Basset.
1 Basset, £29½.	5 Killy (Lelant).	15 Tincroft, £16½.
15 Bottle Hill.	25 Lady Bertha, 21s. 9d.	10 Trevelyan, £12½.
10 Camborne Vean, 36s.	10 Ludcott, £2 1s. 3d.	40 Tamar Consols, 19s.
2 Condurrow.	3 Long Rake, £17½.	40 Tolvidden, £2 1s. 3d.
10 Cook's Kitchen, £32½.	5 Marke Valley, £2.	5 United Mexican.
5 Cliff Amal., £23½.	5 Mary Ann.	50 Vale of Towry, 6s. 3d.
50 Cambrian Gold, £13½.	50 Mill Dam (offer wanted).	5 Vigna and Clogau, £27.
25 Cardigan Cons., 17s. 6d.	100 North Miners, 12s.	30 Wheal Union, 12s. 9d.
1 Devon Great Consols.	1 New Seton.	100 Worthing, 10s. 9d.
40 Drake Walls, 48s. 9d.	10 North Basset, £2 9s. 6d.	1 West Seton.
25 East Russell, £25 18s. 9d.	5 North Frances.	3 West Tolgus, £26½.
5 E. Carn Brea, £11 6s.	20 No. Trevelyan, 8s. 9d.	100 West Polmar, 8s. 6d.
20 East Grenville, 48s. 9d.	20 North Down, £2 18s. 9d.	5 West Caradon, £35.
15 East Caradon, £47 17 6	1 North Rosekear, £20½.	5 Wheal Grylls, £24.
1 East Basset, £23.	10 North Crofty, £4 11s. 3d.	1 Wheal Seton, £27½.
50 East Jane, 52s. 6d.	60 Polhigey Moor, 32s. 6d.	20 Wh. Grenville, £2 8s. 9d.
15 E. Rosewarne, £23½.	20 Pen-an-drea, 20s. 6d.	12 Wheal Uny, £7.
20 East Seton.	40 Pendenn Consols, £24½.	5 Wheal Margaret, £23½.
20 East del Rey.	2 Providence, £43½.	100 Wheal Hearle, £24.
5 Foxdale.	50 Rosewarne Con., £2 17s. 6	5 Wendron Cons., £12½.
5 Grambler, £17½.	1 South Caradon.	20 West Fowry.
10 Gt. Fortune, £20½.	5 St. Tolgus, £26½.	25 West Penstruthal, £2.
10 Gt. Retallack, 11s. 9d.	10 St. Ives Consols, £22½.	10 West Trevelyan, 12s.
20 Gt. So. Tolgus, £27½.	10 St. John del Rey.	1 Wheal Buller.
5 Gonnams, £2 6s. 3d.	5 Stray Park, £4½.	75 Wheal Harriett, 88s. 9d.
50 Gwydir Park, 8s. 6d.	25 Stridridge.	25 Wheal Union, £2 17s. 6d.
10 Hings. Down, £2 18s. 9d.	1 S. Wh. Frances, £27½.	20 Wheal Crebor, 22s. 6d.

I strongly recommend the sale of Wheal Harriett at £4½, and the purchase of East Rosewarne at £23½; both these mines are in the same office.

N.B.—Mr. LELEAN requests that all shares for sale be sent in on Thursday evening the latest, to insure their insertion.—Feb. 6, 1863.

JOHN RISLEY, 32, LOMBARD STREET, LONDON, E.C. SHARES IN MINES BOUGHT and SOLD on commission, at 1¼ per cent. for immediate cash. Bankers: London and Westminster, Lothbury.

MESSRS. WARD AND JACKMAN, MINING AND SHAREBROKERS, 2, ADAM'S COURT, OLD BROAD STREET, LONDON, E.C., beg to inform their clients and friends that they have entered into partnership, and take this opportunity of thanking them for the flattering support with which they have been honoured for the last TEN YEARS, and they trust that the appreciation of their labours to give satisfaction may now be extended to them under the new firm of "WARD AND JACKMAN."
They purpose executing orders in every description of mining shares and other securities, and to ensure the interests of their clients they are determined to adhere strictly to a commission business.
Feb. 6, 1863. Bankers: London and Westminster, Lothbury.

MESSRS. T. P. THOMAS AND SON WILL SELL, BY PUBLIC AUCTION, at Garraway's, on Thursday, the 12th of February inst., at One o'clock, the FOLLOWING VALUABLE DIVIDEND, FORFEITED, and OTHER MINING SHARES:—

Vale of Towry (forfeited for non-payment of calls).
1 Eaglebrook (forfeited for non-payment of calls).
33 Ludcott.
35 Nant-y-lago.
120 South Condurrow.
10 North Phoenix.
50 Gwydyr Park.
45 South Darren.
1 Gramb. and St. Aubyn.
10 Long Rake.
19 Margery.
10 Gurlyn.
5 Treilyn.
5 Great Trevelloe.
20 Bychton Coal.
5 Pant-y-Buarth.
40 Hlogan Consols.
33 Ludcott.
35 Nant-y-lago.
120 South Condurrow.
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5 Pant-y-Buarth.
40 Hlogan Consols.
33 Ludcott.
35 Nant-y-lago.
120 South Condurrow.
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Original Correspondence.

THE LONDON COAL MARKET.

SIR,—I think you are quite right in confining your attention to an abuse whose removal is within the competence of the Coal Trade Association, and in not allowing yourself to be drawn into a discussion of questions about direct consignments and restrictive bonds, as suggested in last week's Journal by Mr. Hugh Taylor. No man knows better than Mr. Taylor that the revival of the old system of selling to the shipowner is impracticable, simply because in the present condition of the London Coal Market shipowners will not speculate in coal; and as to restrictive bonds, the free trade tendencies of the age are utterly opposed to them, and the keenness of competition renders it quite impossible to carry them out. Let the coalowners reform the abuses of the Coal Market, let them agitate for a removal of oppressive duties, let them use their influence to obtain a reduction of railway charges; these are all matters which, in a greater or less degree, lie within their competence—reforms whose accomplishment must necessarily precede even the attempt to introduce either of the plans suggested by Mr. Taylor.—*South Shields, Feb. 2.* A TYNSIDER.

CANDLES v. SAFETY-LAMPS.

SIR,—A rather unfair attack has been made upon your excellent correspondent, Mr. Jos. Goodwin, because he happened to state at the last meeting of the Manchester Geological Society that "he would sooner use a candle, with all its defects, than a Davy lamp;" yet, I think, he is not the only practical man who entertains that opinion. With reference to this remark, his opponent states that any person who is at all acquainted with mining will see at once that Mr. Goodwin has never worked in a mine of a greater depth than about 150 yards; and, though he has gone through all the stages of that dangerous occupation, from that of standing behind a trap-door to the management of a roadside colliery, yet it will be apparent to all that he has never seen a colliery of greater depth than above stated. It is well known that any amount of ventilation cannot dilute gases which are very often liberated from these deep mines; and it is only through the agency of safety-lamps that the deep mines can be worked.

Now, comparing the two opinions, I believe there are few who will not concur with me that Mr. Goodwin's remark displays by far the greater amount of practical and valuable knowledge. No one can be more desirous than myself that the inventors of the various kinds of safety-lamps which have been from time to time introduced should be rewarded for their ingenuity; but I truly believe that quite as many deaths have resulted from the use of safety-lamps as have been saved by their use. Can any of your correspondents inform me how long it has been "well known" that there is more difficulty in ventilating a deep colliery than a shallow one? For my own part, I am inclined to think the reverse is the case. If, however, the general opinion is that difficulty to properly ventilate coal pits increases with depth, I may be induced to consider how far Mr. Goodwin's remarks are calculated to do injury "to owners of collieries who do not understand mining."

The Inspectors of Coal Mines generally, and Mr. Joseph Dickinson, I think, in particular, have never ceased to contend that safety-lamps should be used as an adjunct to, and not as a substitute for, adequate ventilation, and of the accuracy of this view surely two opinions cannot exist. Now, is it not a fact that, as a rule, the air is better in those pits where candles are used than in those where safety-lamps are employed? And why is it? Because, but too often, coalowners and colliery viewers consider that "adequate ventilation" means a state of ventilation which just enables a man to live, and just prevents explosion. Where candles are used the air must be good, but where lamps are employed ventilation is too often neglected. Let the Inspectors have power to enforce fresh air and safety-lamps, instead of fresh air or safety-lamps, and the mortality in collieries will be at once reduced. J. D.

Our correspondent evidently alludes to a letter which appeared in the *Manchester Guardian* in that paper of Thursday we find the following communication from Mr. Goodwin, and which we, therefore, think it only proper to subjoin:—

SIR,—Since you cannot afford space for me to answer the remarks of your correspondent in detail, perhaps you will permit me to say that I have not only worked in mines far more than double the depth your correspondent names, but that I have the management of a colliery at the present time, the workings of which are more than 360 yards in depth. If your correspondent's remarks respecting the roadside colliery were made for the purpose of insinuating that my experience was only of a limited character, it is not necessary to say that I have had the management of collieries employing more than 600 workmen at a time, and at the present time have the management of three distinct and separate collieries. I may safely say that there is not a single branch of mining engineering but has afforded me an extensive and varied experience. Your correspondent's remarks respecting the impossibility of diluting gases in deep mines sets at defiance all well-known chemical laws, besides being opposed to all demonstrative facts; therefore, they carry their own refutation with them. What I said at our meeting was, that rather than work a colliery upon the principle of converting the old workings into a series of huge gasometers, or receptacles for containing the destructive enemy, fire-damp, as many collieries are worked, I would rather depend upon a proper system of working a colliery, and accept the principle of working with naked lights, with all its defects, than the use of the colliery-lamp in a mine so worked. With the safety-lamp the poor miner may be worked in an atmosphere that either consigns him to an early grave, or stamps him with all the signs of premature old age and decay before he has arrived at the prime of life. The proof that the safety-lamp is often used as a substitute for ventilation is to be found in the cases where proprietors of mines are summoned for such offences; but the cases that come before the public give but a very faint idea of the extent to which it is practised. If your correspondent will unmask himself, and meet me in the columns of the *Mining Journal*, I shall be most happy to discuss the subject in all its bearings, or, if he should decline to do so, it would afford me pleasure to meet him at the Geological Society, Manchester, where I purpose reading a paper at no distant period, "On the Safety-lamp and its Uses." Jos. Goodwin.

COAL-WORKING—LONG WALL v. PILLAR AND STALL.

SIR,—Those of your readers who have been at the trouble to read the whole of Mr. Naysmith's remarks in defence of his paper published in the *Journal* of Nov. 29, will not be much surprised to hear that he is desirous of finding some pretext to withdraw from his unenviable position. I do not object, for my own part, to his mode of procedure, for it only either shows the weakness of his case, or his want of knowledge upon subjects with which he ought to be thoroughly conversant. I, nevertheless, deem it necessary to draw the attention of your readers to the fact that Mr. Naysmith has not attempted to vindicate his position by showing that the principle of ventilation and mode of working which he so strongly recommended were equal to the system he so strongly condemned. It is true that he has made the admission that the long wall system he was condemning was not the long wall system skillfully conducted; and in fact, if not in words, that he was not master of the subject he attempted to write upon. By this time Mr. Naysmith will have discovered how dangerous it is to attempt to instruct the public upon matters he does not himself properly understand. I flatter myself that at no distant period Mr. Naysmith will compliment me on pointing out the danger, and thus enabling him to steer clear of some of the shoals and quicksands of life with which he otherwise would have been beset.

I object to the term discussion being applied to the correspondence that has taken place on the above-named subject, on the ground that Mr. Naysmith has studiously avoided entering into any defence of the principles he so strongly advocated, beyond that of making a few random remarks upon subjects having little or no bearing upon the subject at issue. If Mr. Naysmith had endeavoured to show that his mode of splitting up or dividing a current of air possessed some advantages (although he had been unsuccessful), it would at least have shown that he was not trifling with a subject of such vital importance. Or if he had admitted it was an error on his part to have advocated and drawn a diagram illustrative of a principle whereby the whole of the workings are converted into receptacles for a gas ever ready to belch forth its destructive and deadly powers so soon as the spark is applied, whether by accident, recklessness, or any other cause, it would have been considered a pardonable offence in one so young in experience, if not in years. If I had overstated the danger and evils consequent upon working a colliery on the principle advocated by Mr. Naysmith, surely he could have pointed out in what respect I had done so; if not, have shown its advantages over other systems. Mr. Naysmith, however, passes over the subject in silence, from what motive we can only conjecture. Mr. Naysmith says, "I, however, cannot (with Mr. Goodwin) see any great danger in allowing the water level to be an intake air course." The principle of using a water or lodge level for an intake air course is one of the most primitive systems in connection with the working of coal mines, but it is now abandoned at all well-managed collieries. The objections to the principle are so apparent that it is almost unnecessary to dwell upon the subject, but for the information of Mr. Naysmith, I will briefly refer to a few of the most prominent objections. First, should any of the machinery connected with the pumping of water break or become deranged, so as to prevent the pumping but for a very limited time, the water becomes roofed, or, in other words, fills the level, thus effectually stopping the circulation of the air, and, as a natural consequence in a very small space, allowing the whole of the workings to become charged with that subtle and deadly enemy, fire-damp. Anyone who has had to do with the removal of large bodies of carbonated hydrogen, or fiery gas, in the underground workings of a mine is aware that extraordinary care is required to prevent an explosion, especially when a bottom furnace is used as a ventilating agent. Again, suppose the water becomes dammed up by a fall of the roof, or any other cause, at a considerable distance from the shaft, the engine-tender may flatter himself that all is going on right, and that he is pumping the whole of the water out of the mine, as shown by his indicator, whilst at the same time the mine may be generating gas to such an extent that a few hours defective ventilation will change a comparatively safe mine into one of the most dangerous description. Nor is it necessary for the whole of the water level to be filled, and the ventilation wholly suspended, to produce these disastrous effects; for the same may occur by the intake air being reduced in size by the water rising in the level, and thus lessening the quantity of air passing through a mine, when the atmosphere of the mine is already almost at the explosive point. In fact, it is practically impossible to pass a uniform current of air through a mine where the water level is used as an intake air course; and sooner or later all the contingencies named, and many others, will have to be guarded against, if that system be practised. To my mind it is

astounding to find a gentleman styling himself a mining engineer, and claiming the advantage of having received his training under some of the most eminent mining engineers of the day, advocating such a system, and when his attention is drawn to it making such a reply. If this case is to be taken as a standard of competency of scientific training, we may many objects to that class of colliery managers.

In reply to the defective and inauspicious system of making stoppings that I pointed out in Mr. Naysmith's system he remarks—"Now, every person conversant with coal mining in South Wales knows that it is useless to build permanent stoppings nearer the main levels or corners of the coal than 4 yards, on account of the open slips, or facings, which penetrate so far that it requires that distance to keep them tight." Either Mr. Naysmith vastly underestimates the powers of discernment of your readers, or otherwise he is desirous of showing how inconsistent he can be in his remarks. Supposing, as Mr. Naysmith says, a stopping cannot be made air-tight at a less distance than 4 yards from the level, it must of necessity require a distance of 8 yards, besides the thickness of the stopping, to keep the air in its proper course, for the open facings he speaks of must be above the stopping as well as below. Yet Mr. Naysmith, in describing his system, speaks of 6 yards pillars. Pray, Mr. Naysmith, what becomes of your perfect system of ventilation, when you get each alternate 6 yards and leave 6 yards pillars, if 8 yards pillars are required to keep the air in its proper course, where the coal has not been crushed by the process of working out one-half of it in driving the bords? If Mr. Naysmith's latter statement be correct, it would be practically impossible to convey a current of air round the workings shown in his diagram; for whether the workings be in South Wales or elsewhere, if the air will penetrate through the coal 8 yards, where the coal is solid, it will certainly penetrate very much further when the superincumbent weight of the roof is forced upon the coal by the removal of one-half of the support. Therefore, either Mr. Naysmith's statement is incorrect, as most rational men will consider it, or he is showing the impracticability of conducting operations upon the principle he so recently spoke of as being the most perfect for getting coal.

In reply to the remarks of Mr. Naysmith not accepting Mr. Dickinson as an authority, I can only observe that I have a strong impression that Mr. Naysmith is almost the only person that could be found who would dispute such authority, when the statement was made in the positive and unequivocal manner that Mr. Dickinson made it. I think it would be very difficult indeed for Mr. Naysmith to name a gentleman who has had better opportunities of studying the different methods of working coal mines, or one who has more largely availed himself of the opportunities presented to him. Mr. Naysmith asks, when he admitted that one-sixth of all the coal wrought must be used for no better purpose than that of building gob walls? When he made the admission that he built a wall of small coal, dust, &c., for supporting the roof and dividing each bord, for purposes of ventilation. If a wall is to be built so as to be of any use for such purpose, it must at the least be 4 ft. in thickness, and the refuse upon which it is built is produced, according to Mr. Naysmith's own statement, from the working out of 6 or 8 yards of coal. If Mr. Naysmith had allowed this part of the subject to have passed by unchallenged he would, in all probability, not have stood worse in the estimation of his friends, whilst he would have spared himself the necessity of showing his limited acquaintance with metallurgy.

Mr. Naysmith says that he inferred from what I stated in reference to the colliery I mentioned as being worked upon the principle illustrated in his diagram, that we have since changed it to the long wall system. In reply, permit me to remark that I have no desire to be held responsible for Mr. Naysmith's inferences, but that I shall always deem myself responsible for all I write or utter, and take a pleasure in making any necessary correction or retraction, should a case be pointed out requiring it. If Mr. Naysmith will be kind enough to again read over my remarks, he will find that he has no grounds for drawing such an inference beyond that of his own fancy.

Mr. Naysmith says he has put four questions to me, which it appears to him have not been answered to his satisfaction. If Mr. Naysmith will bear in mind that I promised to meet either him or any other person at the colliery in question, and show them the plans and books, to corroborate all I have stated, he will see the unfairness of pressing me to say more upon the subject. If no such promise had been made I should have concluded that Mr. Naysmith wanted the information for some useful purpose, and was not putting the questions for the purpose of annoyance, and of drawing the attention of the public from the questions at issue; but since my remarks were accompanied by the liberal proposal that would have enabled Mr. Naysmith to have obtained all the information required for his mode of putting the questions becomes clear. I may, however, remark that so far from it being a colliery of only a few acres extent, it is a few hundred acres, and that the proprietors appear to be very well satisfied with such an output as Mr. Naysmith sneeringly remarks leaves very little room for a downward tendency. If Mr. Naysmith had been a gentleman of much experience, and a careful observer, he would have been aware that it is the exception, and not the rule, for collieries to answer the expectations of the proprietors when too much attention is paid to raising the greatest quantity of coal in the least time; and that this circumstance has been the forerunner to the loss of many useful lives and much valuable property. My plan is to advocate raising as much coal as the market requires, and to found contentment with safety to life and property, and the adherence to some acknowledged principle of working a colliery. Beyond this I cannot consent to go.

Feeling that further efforts to bring the subject before your readers in an instructive manner with such an opponent as Mr. Naysmith is only waste of strength and time, which I can ill afford to spend in barren results at the present, I beg to take leave of your readers for the present, and to offer you my warmest thanks for the fairness with which we have been treated at your hands. Jos. Goodwin.

Hyde and Haughton Collieries.

PRACTICAL COLLIERY WORKING—VENTILATION.

SIR,—I hear some talk down here about a question as to how four galleries, driven out east, north, west, and south from the same coal pit, can be ventilated without using doors, and so as each gallery shall have a separate split of air, the shaft having only one brattice, and the drawing to be done on one side only. Now, Sir, I have been considering, and I do not believe it can be done by any means that would be practically useful. I believe the question must have been put by Mr. R. H. Hughes, to whose invention for forcing air into pits you have several times referred, and I wonder that practical men should give it any serious attention. We all know that since the Hartley explosion an Act of Parliament has been passed that not more than 20 persons shall be employed in any colliery with only one pit, so that even if these cross-way galleries could be ventilated as proposed, it would be no use, because the small number of men that could be employed would never pay for the trouble and expense. The only way of ventilating such places satisfactorily would be by pipes, as Mr. Hughes proposes, and for this reason—the pipes would be cheapest, and as all arrangements would be equally useless when the workings had been carried on for six months, the cheapest should be adopted.

You must not, however, suppose that I would advocate the pipe-system, except as a temporary application—indeed, it would be as useless for ventilating a colliery in full work as a common house-bellows; and for sinking shafts and opening exploratory galleries, it might prove useful. With regard to ventilation generally, I think that almost every seam of coal requires some special arrangements, and that as a rule the colliery managers well understand their business. As to very fiery seams, I think the time will come when boring will be so cheaply and expeditiously done, that additional air-shafts will be able to be put down at a trifling cost, and that the airways will be so arranged that every five acres of coal may receive fresh air direct from the surface; and that a channel, never used as a travelling road, will be made to receive all the returns, and convey them over the furnace by a dumb drift. There would then be no need of safety-lamps, and the most fiery pit would be as fresh as the fields above it. If mine managers study how to ventilate working pits better, instead of wasting their time about cross-way galleries, which are never driven, I think it would be much better for the health and safety of—

A WORKING COLLIER.

ON GOLD QUARTZ CRUSHING, AND GOLD ORES.

SIR,—Last week's *Journal* contained three papers of considerable interest to all capitalists who have embarked in this business, and are desirous of arriving at the truth on all points of importance in relation thereto. The papers referred to are—1. Letter from Mr. W. Reay, jun., 2. Report of the Port Phillip Company, with valuable observations from Mr. Bland; and 3. Letter signed "Sum Cuique;" and are all deserving of notice, and entitled to consideration.

Separating for the present the mechanical from the chemical treatment of quartz and gold ores, Mr. Reay ably puts forward the advantages of "stamps" as a disintegrating power; and, if in the next or subsequent *Journal*, the patentees and advocates of other "crushers" fail to put in a satisfactory appearance as regards "bulk actually treated," we may reasonably suppose them defeated, *palmarum qui meruit ferat!* Look to your laurels, Messrs. Cottingham, Schiele, and all industrious patentees of the last decade! Mr. Cottingham's improved amalgamator, successfully tried either 10 years ago or in 1862-3, may form the subject of another notice; but surely he, after perusal of Mr. Reay's letter, must be convinced of the difficulty of introducing novelty into the system of "pulverising," as practised abroad on bulk; and he will, probably, find that his suggested improvements have actually been for years, and are, in daily use for the crushing of certain ores in more than one part of the United Kingdom.

As regards the chemical treatment of gold quartz and ores, a fair and honourable opportunity is now afforded to Messrs. Mitchell, Longmaid, Paston, Price, W. Henderson, and many other patentees, to render an account of the (alas! commercial) value of the "talents" entrusted to them. Can they respond? Will they? But let each and all in their respective sphere accept the thanks of the community for any disinterested efforts to advance the cause of science, and still persevere.

Gold quartz yielding only an average of little over $\frac{1}{2}$ oz. of gold per ton has restored the capital of the St. John del Rey Company and the Port Phillip Company (from 60,000l. or 80,000l. each) "Lost on other business," and enabled them to pay good dividends on their original capital, and to become popular on the Stock Exchange. Mr. Bland reports that in Australia the yield of gold quartz holds good in depth, and his remarks must tend to dispel the illusions that the value of quartz lodes or reefs (either for richness, poverty, or absence of gold) can be judged by the treatment of a few tons. A yield of $\frac{1}{2}$ oz. of gold per ton amounts to a "single grain weight of gold in every 9 lbs. weight" of quartz on an average, and yet how many have pronounced quartz rich or poor on assays of 800 or 2000 grs., "not an average of bulk;" and gold being generally irregularly

disseminated, it stands to reason much quartz may contain no gold, whilst the bulk is valuable. How many thousands of pounds have been lost from non-observation of this fact? How many companies broken up whose prospects were really good? How many have been unjustly condemned, perhaps ruined, through the absence of the requisite knowledge, the greed of gain, the hasty temper of directors, secretaries, and shareholders? or, in other words, by the action and reaction of public opinion, to the formation of which they principally contributed.

Where is now the Colonial Company, formed under the management of Messrs. John Taylor and Sons, the Nouveau Monde, both with large capitals paid up, and a host of companies formed up to 1859? Is it not possible that some, if not many of them, would now have been flourishing had they followed the crushing of gold quartz and reduction of gold ores, for which they were constituted, with skill and perseverance? Shall such be the case again? or will due honour be at last awarded to, and confidence placed in, those (some of whom have had twenty or thirty years' experience in foreign climes, and may now happen to be in England) whose opinions on this subject are deservedly entitled to consideration, and amongst whom, without being invidious, may be numbered Dr. Percy, Mr. Warrington Smyth, Mr. Evan Hopkins, Mr. J. H. Clement, Mr. Bland, Mr. Reay, Mr. A. Tregoning, Mr. T. A. Readwin, Mr. W. Morgan Brown, &c., whose names are familiar with the mining world either at home and abroad? May we not safely draw the conclusion that the crushing of gold quartz and reduction of gold ores by those who understand the subject, is a profitable and increasing business, but to a great extent dependent for success (as what business is not) on good management, under which conditions it is well entitled to public support.

Mr. Reay's comment on the probability of the combination of gold in a non-metallic state with another body, and the mineralisation of gold will, it is to be hoped, meet just attention in quarters where its consequence is recognised. REVIEWER.

ORIGIN OF GOLD.

SIR,—The following notes on this subject are extracted from the valuable report of the Geology of Vermont, by the Messrs. Hitchcock and Mr. Albert Hager, and may be interesting to the readers of the *Mining Journal* who have not had an opportunity of consulting the original work.

Gold has been found more or less in so many rocks, but its principal deposit all over the world is in metamorphosed Silurian, Devonian, and Carboniferous schists, frequently near their junction with eruptive rocks. Altered Silurian rocks are probably its most frequent position, and the quartz veins traversing these its immediate matrix. It is such veins traversing talcose schist that afford gold in the Ural Mountains, Australia, California, and the Appalachian Mountains of the United States. Gold occurs also in the schist itself, and this not unfrequently becomes decided mica-schist. It is in the talcose schist chiefly that gold is found in Vermont. It is found, however, in some quantity in gneiss at Bridgewater, and Danby Mountain in the region of talcoid slate and limestone; but generally it is in superficial deposits of coarse sand, gravel, and boulders, lying above the talcose formation, that any quantity worth working has been found. In Bridgewater a bed of quartz in gneiss has been explored, containing a small quantity of gold, but not enough to yield any profits. With few exceptions this has been found to be the case the world over. In the Ural Mountains only one quartz vein has been found rich enough to repay the expense of working, though it is thought the case is different in California. We are not certain of the existence of gold in the rocks in any other than a metallic state; it occurs, however, in minute quantities in galena, and in copper and iron pyrites, and it is probable that it exists in them in the state of sulphides. In such a case the oxidation of the sulphide would eliminate the gold, and water would remove it, and throw it into the form of alluvial deposits. But little gold has been found in the secondary and tertiary rocks, although the materials of which they are composed were obtained by erosion of the palaeozoic and metamorphic rocks. Hence Sir R. Murchison infers that the gold could not have been introduced into the palaeozoic schists till after the deposition of the secondary and tertiary rocks. He finds, moreover, that over a large area in Russia the palaeozoic rocks are not crystalline, and only slightly solidified, and that they contain no gold; whereas the same strata in the Ural chain, broken up and pierced by the eruptive rocks, and rendered crystalline, become highly metalliferous and auriferous. The facts adduced by Sir Roderick certainly make it very probable that gold was not introduced into the Russian rocks till the time of their metamorphism, which he would make more recent than the tertiary. Probably it was metamorphism that introduced this metal into other strata; but the period of metamorphism may have varied a good deal in different parts of the world. We have no means of determining the period in Vermont, only that it was probably more recent than the carboniferous period. But the most difficult point to settle is the manner in which gold has been introduced into the rocks. It could not, of course, have been introduced in its metallic state unless it were converted into vapour, and some have imagined it to have been sublimated from the intensely heated interior. But how that would disseminate it through quartz in grains too small for the naked eye, or, on the other hand, cause it to collect in nuggets of 40 lbs. or 50 lbs., is beyond our conception. It has been more plausibly suggested that the quartz veins containing the gold were injected from a molten mass beneath, through which the metal was diffused. But the idea of bringing pure quartz into a molten state in the earth is absurd, since the most intense heat scarcely melts it at all. Moreover, if we could in this way introduce the gold into the veins, yet this would not carry it into the folia of the schists, where often it is found in large quantities. In short, we can conceive of no mode in which dry heat alone could bring up gold from the melted interior, and disseminate it through the rocks in a metallic state.

On the other hand, there are difficulties in the hypothesis which would introduce it in the wet way. The chief one is that we do not find in nature any compound of gold that is soluble in water. Bischof, however, remarks that "The occurrence of gold as small crystals, and as capillary masses, is indicative of processes of reduction from compounds, and its frequent occurrence in quartz indicates the deposition of such gold compounds from the water that deposited the quartz. There seems to be an intimate connection between gold and iron, either in the state of the sulphide or oxide, and likewise between quartz and gold. A silicate of gold may be prepared artificially, and it appears that under certain circumstances it may be dissolved in considerable amount. The quartz, associated with the gold, originates from the decomposition of silicates in rocks, and it may be conjectured that the gold has the same origin possibly existing as silicate."

The authors of the report give an extract of a letter received from Dr. Homer Holland, who has had extensive opportunities of examining gold regions: he says—"The bluish chloritic tale is, doubtless, the original repository of gold in this and every other country. This matrix, be what it may, prove chemically in its composition and affinities, is not talc, nor exactly agalmatolite, and I have invariably noticed that when powdered and mixed, and ignited with nitrate of soda, it becomes shining stained mica, and carries, in many instances, astonishing quantities of gold, resolved by this ignition, when not a particle of gold or crystalline sulphide is to be detected by the eye, aided by the microscope. Gold may have permeated this matrix as a double chloride or sulphide, either in vapour or solution. But when or where it came from, and was secreted, combined, or diffused and precipitated, and is now by decomposition metallised, the chemistry of geology and the inorganic physiology of veins must settle."

Upon the whole, we feel as if the introduction of gold into the rocks in the wet way were the only hypothesis that will bear examination; but whence it originated, and why it should have selected talcose schist as its most common repository, we are unable to say. In some countries its introduction seems to have been connected with eruptive rocks, but in Vermont no other formation is so free from igneous rocks as talcose schist; it has, indeed, experienced great metamorphisms. But this seems to have been effected by hot water rather than the dry heat of eruptive rocks. We are inclined, therefore, to say from this, and a multitude of similar facts, that the introduction of gold seems to have been connected with metamorphism rather than the dry heat of volcanic outbursts. As to the amount of gold that may be expected to be found in Vermont, theory furnishes no means of judging; we can only say that a real gold formation of great extent occurs in the State, extending, in fact, through its whole length, and that in numerous places it yields gold, sometimes, we are told, in profitable amount. But practical miners are the only men who can find out where such diggings will pay. Like all other gold formations, some spots will be found rich and others poor. We trust that too much is known on this subject at the present day to leave any to indulge in extravagant speculations, or to make investments without reason.

In addition to the preceding notes, it may be stated that there are three great ranges of talcose schist in Vermont: the eastern, which lies partly in New Hampshire, is the smallest; the middle range, which is the largest,

runs nearly north through the State, passing out into Canada, in Troy and Newport; and the western range, which is wedge-shaped, having its point in Bristol, being widest at the Canada line, and uniting with the middle range north of Jay Peak.

These rocks are considered to be of Lower Silurian age, and, although called talcose schists, they contain but little magnesia. Besides gold, many other minerals are found in them, as magnetic chromite, and specular iron, chalybite, red hematite, mispickel, galena, blende, native copper, rutile, emerald nickel, psilomelane, quartz, and many anhydrous silicates.

Under somewhat similar circumstances to those which obtain in Vermont, gold occurs in North Wales. It is there found in quartz veins traversing talcoid schist of Lower Silurian age, and associated with tetradymite, galena, blende, iron and copper pyrites, chalybite, barytes, &c.

London, Jan. 20.

J. MORRIS.

IRON-MAKING IN YORKSHIRE, SOUTH WALES, &c.

SIR,—Under this title there is, in the Journal of Jan. 31, a letter from Mr. S. B. Rogers, of Newport, Monmouthshire, in which that gentleman states—"In South Wales good mine pig-iron may be made for 30s. per ton, and in some localities at even a less cost." Now, I have been a pig-maker all my life, but never having been in South Wales, and not having seen the "Treatise on Iron Metallurgy," to which Mr. Rogers so conspicuously alludes, I am unable to understand how it can be possible to produce mine pig-iron at such a startlingly low figure. I, therefore, ask Mr. Rogers to give through your columns, for the information of the trade in Derbyshire, particulars of his yield, based on actual, not theoretic, data.

Feb. 4.

A DERBYSHIRE PIG-MASTER.

SPATHOSE IRON ON THE BRENDON HILLS.

SIR,—In the Journal of Jan. 17, I read a letter from Mr. Mushet, in which he says you have made an error in assigning to my late father (Mr. E. Rogers) the discovery of the spathose iron ore in the Brendon Hills, Somersetshire. Mr. Mushet also states that "the Flemings discovered and worked this ore about the time of the Crusaders;" and that he (Mr. Mushet) used it, and offered it to Mr. T. Brown for the sum of 2000*l*. I was not before aware that my late father claimed the discovery of this ore, and was always under the impression that what he claimed was the development, and not the discovery. Whether my late father, or Mr. Mushet, or the Flemings, discovered this ore, there is no doubt but that my late father was the real developer of it, and the only one who brought it to any real use on a large scale. If Mr. Mushet claims the development, and knew the commercial value of this ore, it seems very strange that, after using it himself, and offering it to Mr. Thomas Brown, he should have let it go, and allow it to remain for others to work and derive benefit from. I think that if Mr. Mushet claimed the discovery or development, he might have done so during my father's lifetime; but, as it is too often the way of the world to "kick a man after he is dead," we can hardly wonder, or be surprised, at this strange conduct on the part of Mr. Mushet.

Abercarn, Feb. 4.

JOHN K. ROGERS.

YELLOW METAL GUNS.

SIR,—I observe that a correspondent of the *Times* alludes to the proposed introduction of the so-called "sterro-metal," invented by Baron de Rosthorn, of Vienna. It is stated, upon no less authorities than the analysts of the Polytechnic Institution, at Vienna, and at the Arsenal, that the composition of the metal varies from copper, 55-04; spelter, 42-36; iron, 1-77; and tin, 0-83; to copper, 57-63; spelter, 40-22; iron, 1-86; and tin, 0-15; and it is stated that the difference in the proportion of tin varies considerably. If, then, such alloys have the great tensile strength claimed for them, and if the relative proportions of the several metals be as variable as inferred, I cannot understand why our British manufacturers should not find a large market for their yellow metal for gun-making purposes. The inventor proposes that heavy ordnance should consist of a tube of the sterro-metal, surrounded by wrought or cast-iron, and the advantages claimed are facilities for manufacture and cheapness—neither of which claims I can attempt to deny.

But if this sterro-metal be so remarkable as stated, why should not yellow metal, which would certainly possess much the same properties, be employed instead? Yellow metal tubes could be readily supplied in any quantities, and as the correspondent of the *Times* admits that "nothing short of repeated and searching trials with gunpowder will suffice to establish the suitability of sterro-metal for ordnance," why should not an attempt be made to benefit our home industry before patronising foreigners? Mr. Anderson, of Woolwich Arsenal, says, "So far as my present experience goes, we are still in want of the proper, perfect, material for the interior of the bores of large guns." Now, I am of opinion that if any alloy of copper and spelter is to prove the proper and perfect material sought, a good yellow metal will be the alloy. There are ample facilities at Birmingham for testing the accuracy or inaccuracy of my supposition cheaply and indisputably, and considering the benefit which might result to the town generally, I think that the subject is one which should not be lost sight of, either by the gunmakers or the yellow metal manufacturers.

Birmingham, Feb. 2.

CUPRUM.

PATENT LAW AMENDMENT.

SIR,—I have just had the advantage of perusing the circular issued by the "Inventors' Institute" upon the subject of Patent Law Reform, and was much pleased to see such an excellent list of names included in the council, but I am compelled to say that there are some points in the report upon which I differ from the views of the Institute, and believe that inventors generally would differ from them. Firstly, as to the appointment of a board of investigators, I consider that such a body would prove most prejudicial to the interest of inventors—the inventor being undoubtedly the best judge as to whether his invention is worth patenting, and the only party who can lose if he be proved a plagiarist. Next, as to granting patents for not less than 21 years, I consider that it is a modification not required, more especially as inventors could not reasonably hope for protection for 21 years at the same price as for 14 years. It is much better as it is, that the grant be made for 14 years, and then extended, if cause be shown, for another seven years.

That the fees might be reduced to one-half I readily admit, and I maintain that in proportion as the earlier fees are reduced, so will the returns to the revenue increase. At present the total fees payable to the Government, during the 14 years continuance of the patent, is 175*l*, of which 25*l* is payable in the first six months; 50*l* at the end of three years, and the remaining 100*l* at the end of seven years. Now, a poor inventor cannot afford to pay 25*l* in the first six months, though many can get together 5*l*, and hence it is that so many inventions receive provisional protection only. Now, if instead of five 5*l* payments during the first six months, they were reduced to five 1*l* payments, the poor inventor would be in a position to protect himself for a sufficient time to enable him to secure assistance to carry out his invention. Let the tax, then, be 5*l* per year, payable in advance, for the next six years, and 10*l* per year after, and every facility would be offered for carrying out successful inventions; less loss would result from unsuccessful inventions; and there would be fewer abandoned inventions, bearing the appearance of being protected. This, I conceive, to be important, because there are many processes which, although the inventor cannot perfect and profit by, others would take up and work if they were not trammelled by the Patent Laws.

The Inventors' Institute proposes five 2*l* 10*s* payments in the first six months, but this is too much, and I believe that it is only patent agents, who usually charge an amount equal to the Government fees for lodging the papers, that would advocate such fees during the earlier existence of the patent. The fees I propose leave ample margin for increased labour and fees in the commissioners' office, as it will be seen that the Government will receive 105*l* during the 14 years of the patent. By making each yearly instalment payable by "notice to continue" on a 5*l* stamp, however, the amount of labour in the Patent Office would not increase, except in proportion to the number of patents granted.

With regard to the proposition of the institute in question—that the patent should include all Her Majesty's dominions, it is impracticable, and would be very unsatisfactory in its operation; for, although it might in certain instances prove advantageous to the British inventor, it would lead to continual litigation, where an exclusive right was granted in a colony (which patent would, of course, have to apply to the mother country and all her colonies) for an invention new in such colony, but old, or at least known, elsewhere. The granting of separate patents, as at present, cannot be improved, for any such modification as that proposed by the Inventors' Institute could only have the effect of hampering trade, and inducing unnecessary litigation. There are other points in the report which might be contested, but I trust I have written enough to show that the Inventors' Institute puts forward such views that it cannot hope to obtain the co-operation of in-

ventors generally, either in the mother country or in the colonies, and that no single individual (unless, perhaps, the patent agents) would benefit by the consummation of its proposition.

AN INVENTOR.

THE MERCANTILE MARKS ACT.

SIR,—The Mercantile Marks Act of last session, having in consequence of the provisions it contains as to the false marking of patent and registered articles been already noted by me in your Journal, has further engaged my careful consideration, which induced me to analyse its provisions; and, as it comprises many points of moment to manufacturers, and those engaged in trade and commerce, I forward the subjoined brief abstract of it.

London, Feb. 4.

F. W. CAMPIN.

SECTION I.—Construction Clause: "Person" to mean any person, "the subject of Her Majesty's not," also "body corporate," or "of the like nature," constituted by the laws of "this country," of "Her Majesty's colonies or dominions," or "of any foreign country," including "any company, association, or society of persons of which the members, some or all, are subjects of Her Majesty or not;" and this whether "established" or "carrying on business within, or partly within, Her Majesty's dominions or elsewhere." Mark to include any "name, signature, word, letter, device, emblem, figure, sign, seal, stamp, diagram, label, ticket, or mark of any other description." And Trade Mark to include the same when "lawfully used by any person" to denote any chattel or (in Scotland) any article of trade, manufacture, or merchandise, to be an article or thing of the manufacture, workmanship, production, or merchandise of such person; or to be an article or thing of any peculiar or particular description, made or sold by such person, and shall also include any name, signature, word, letter, number, figure, mark, or sign, which, in pursuance of any statute or statutes for the time being in force, relating to registered designs, is required to be used. In Scotland misadventure to include "crime and offence," and court to include "any sheriff or sheriff substitute."

2. Forgery or counterfeiting a trade mark, with "intent to defraud, or to enable another to defraud," applying or causing same to be applied falsely, including the application of "any trade mark or any forged or counterfeited trade mark" to any "chattel or article," not being of the "particular or peculiar kind" intended to be denoted thereby, to be a misdemeanour, and subject to the penalty of forfeiture to Her Majesty of "every chattel and article belonging to the misdoer bearing the forged, counterfeited, or falsely applied trade mark." Also the forfeiture of every instrument in possession or power "of the misdoer by which the trade mark, or forgery, or counterfeit thereof has been, or can be, applied." And the same may be destroyed or disposed of by order of the Court.

3. "Every person who, with intent to defraud, or to enable another to defraud, shall apply, or cause or procure to be applied, any trade mark to any chattel, bottle, vessel, case, cover, wrapper, band, reel, ticket, label, or other thing, in, or on, or with which any chattel or article shall be intended to be, or shall be, sold, uttered, or exposed for sale, or intended for any purpose of 'trade or manufacture,' and any use or adoption of a forged, counterfeited, or falsely applied trade mark, or the procuring of the same, is declared a misdemeanour. And the offender, chattels, articles, cases, bottles, and other things mentioned in this section, and the instruments used in violating the same, are to be forfeited, as in section 2, and may be destroyed or disposed of by order of the Court."

4. After Dec. 31, 1863: Selling, uttering, or exposing for sale, or for any purpose of trade or manufacture, with guilty knowledge, any chattel or article with forged or false trade mark, to be subject to a penalty for each offence of a sum of money equal to the value of the article, and a further sum of five pounds, and not less than ten shillings, to do by a justice of the peace; and if this order be not obeyed a penalty of five pounds may be enforced; and the refusal, or neglect, to give information constitutes *prima facie* evidence that the person refusing, or neglecting, had full knowledge that the trade mark was false.

7. Marking, with intent to defraud, any false indication of "quantity" or "weight," or of "place or country," or marking falsely patent, copyright, or registered, is subject to a penalty of a sum equal to the value of the article marked, and also of from ten shillings to five pounds.

8. After Dec. 31, 1863, to sell, utter, or expose for sale, anything with false-misleading quantity, weight, place, or country, is subject to a penalty of from five shillings to five pounds.

9. But it is provided that false names or words generally used on certain classes of articles are not to be within the scope of the Act.

10. In indictments and legal documents the words "trade mark" shall be sufficient description.

11. Proceedings or convictions under this Act not to affect proceedings at law or in equity in which parties may be entitled.

12. The intent to defraud some particular person need not be alleged or proved.

13. Persons who aid and abet in misdemeanours under this Act also guilty of misdemeanours.

14. Misdemeanours under this Act may be punished by fine, or imprisonment "for not more than two years (with or without hard labour)," or fine or imprisonment alone.

15. Recovery of penalties may be effected in England, Wales, or Ireland by an action of debt in any Court of Record, or by summary proceeding before two Justices of the Peace (which by sect. 16 is "to be had according to the provisions of" Act 12 Vict., cap. 48), or in Ireland by Civil Bill in the Civil Bill Court, in Scotland before the Court of Session, or by summary action before the Sheriff.

17. In actions penalties to be accounted for in like manner as other monies payable to the Crown, and plaintiffs to recover "all" costs of suit, "which shall include a full indemnity for all costs and charges which he shall or may have expended or incurred in, about, or for the purposes of the action, unless the Court or Judge thereof shall direct the costs of the ordinary amount only shall be allowed."

18. Limitation of actions, and proceedings to "three years next after committing of the offence, or one year next after the first discovery thereof by the person proceeding."

19. After Dec. 31, 1863: Vendor of an article with a trade mark to be deemed to contract that the mark is genuine, "unless the contrary shall be expressed in some writing, signed by or on behalf of the vendor, and delivered to and accepted by the vendee."

20. Repetition of this enactment "shall apply to the effect of 'any description, statement, or other indication of or respecting 'number, quantity, measure, or weight.'"

21. In suits at law or in equity against persons for using forged trade marks, Court may order articles to be destroyed, or otherwise disposed of, and may award injunction.

22. Persons aggrieved by forgeries or false uses of trade marks may recover damages against the guilty parties.

23. Defendant in any "action," "for or on behalf of Her Majesty," if obtaining judgment, to have full indemnity for all costs and charges thereof, unless the Court or Judge shall direct ordinary costs only.

24. And a plaintiff suing for a penalty "on behalf of Her Majesty" may be compelled to have full indemnity for all costs and charges thereof, unless the Court or Judge shall direct ordinary costs only.

25. The Act is not to affect the Cutlers' Company of Sheffield.

26. "The Merchandise Marks Act, 1862," to be a sufficient description.

THE FUTURE OF AMERICA.

SIR,—The manufacturers of New England must spread over all those States suitable to their craft, or be the rejected of all, as an incubus. Of the thousand points mooted, and to be so, for "reforming" the States of America, by lines "direct or crooked," the possession of the coal of the elder free States (there being none north of Pennsylvania) is, perhaps, the most important, and that (as regards the steam communication with the world) limited to anthracite—on account of the absence of smoke, made contraband of war. Though Coal be not king, Coal will be queen in those States. The manufacture of New England, and steamers dependent on Pennsylvania coal, and without it no amount of tariff on importations will enable them to go on. The winter price, 27*l* per ton, on an average, retail, has heretofore pressed so heavily in that cold climate on the workman and works, that it was nearly equal to the cost of bread of a moderate family in England, and induced the owners of a new cotton factory to propose that a party take a half in it to find money to remove it to the coal, cotton, food, and goods market West. In other words, New England (the chief obstacle to settlement, or separation) is totally at the mercy of Pennsylvania for coal, as of the West for food, and the South for cotton. The statement lately in the *Times* that the vegetable mould is gone from Maine to Florida, and the speeches of Mr. Morrill, of tariff note, in Congress, from the statistics of each of the thirteen original States, that the crops of wheat (formerly on par with those of Britain) are now in the States which have not given up its culture entirely only one-third what they were, or 8 bushels per acre—a yield which, sold in flour at the door of the mechanic from the farmer's wagon, is inadequate to the payment of the labour employed (leaving rent and taxes out of the question), is a fact feature in the supposed "riches" of the free States. The condition of, and management on, the farms of the State (dry and sandy) is well shown by the number of sheep per acre. Mr. Morrill proves that, on about 1000 acres, there were only 1000 sheep, there, in the State of New York, fewer sheep by 300,000 than 30 years ago, and with a heavy tariff, long previous to the war, on foreign wool. A spade, or other implement, is a living, provided a man work it, and so is an American farm; but, in general, it is as hopeless and profitless to let a farm as to expect rent from the spade. Not one farmer of the hundred tenants there intends to remain; his object is (at the cost of the soil) to make in two or three years the money to buy, at the Government price (4*s* per acre) in the West, although there, with vegetable soil sold to be inexhaustible, he has the drawbacks of half prices for grain, pork, &c., want of timber for fences or fuel, bad air and water, &c. A thousand miles of conveyance of wheat by rail, at 33 bushels to the ton, and 2*d* per ton per mile (average) takes the whole value of wheat in the old States. There will soon be some hundreds of miles railway charges for wheat to the Lakes, or to the York and Erie Canal, or rail; thus the "Great West" cannot become united to the North so as to become herself rich, or assist by cheap food the manufacturers of those States. The produce of the West will rather, by the vast steamboat conveyance, avail the South. The coal of the South and West may serve for manufactures, but is very inferior generally; that of Pittsburgh (Pennsylvania) is taken by floats a couple of thousand miles down the rivers, though they have coal near St. Louis, &c.

Pennsylvania, "the key-stone State," is, in fact, the key of the free States; with manufacturing pushed, as it ought to be, to the exporting point in that State, New York, New Jersey, and probably others, east, west, and south, the question of Tariff on importations would cease. As to the military power of the free States, the statistics of the Mexican War, published about seven years ago, by order of Congress, might have warned the country, or prepared it for what has occurred—8000 deserted, and a greater number were discharged on the march. Taylor's army lost only about 1000 men killed in action, yet did all the fighting, and he was made President. Scott, tramped up as equal to Wellington, had, of a much larger army, only 1400 men killed.

Several attempts were made in Congress to stop the supplies of the army. An order sent General Jackson to disband his army thousands of miles from home he disregarded. In place of the rate of pension in England, ample support for the old soldier for life, there was about five years ago a debate in Congress relative to the Land Warrants, due to the soldiers of 1812, nearly all of whom were, of course, dead. I was offered some of those warrants at their market price, under 12*l* for 60 acres, usually costing the soldier more than it is worth in getting "set out" by the surveyors—not equal to one year's pension of the British soldier. Contractors in the favour of the Government were allowed to wrong the army in every necessary, consequently they were only the friendless forerunner or unruly Yankee "rowdy" in the ranks. The officers elected by such men, or appointed by the Government on account of political influence, was the data on which I warned my connection to have nothing to do with the war. As pride, conceit, and rascality unite individuals for anything useful, so must nations. Their boasted school

system is a nursery of disorder and defiance of authority; if the master whips the boy, the parents whip the master.

The free States being, by their climate, a "half year's country" in nearly every description of labour, poverty is entailed on the industries of city or country, despite their nominal high wages. The regular policy of employers is to rely upon the "ready-made" workman of Europe. Youth or aged men are not found in their shops, &c. The former are too independent and unruly, and are left to become "rowdies," or, as they pretend, to do "better than by hard labour." In proof of this, the President Lincoln is the only American who stooped to the wheelbarrow on their greatest work—the York and Erie Canal. Then, although little half the year, the foreigners of 40 years of age is told, "We pay high wages, and cannot employ aged men." After 14 years spent amongst them, I am at a loss as to what becomes of the aged—the Yankee coolly tells them they ought at that age to have saved sufficient for life. The only good trait in the American character, or good custom, is hospitality to travellers of all grades, and "that comes much of pride," that "no one can suffer hunger on their soil." There is 50 per cent. cheat in every article sold. When a poor traveller asks how it is that he cannot buy a penny worth of bread, but is obliged to pay about three times the price bread should be for hard "crackers," he is asked—"What use to sell bread where everyone will give it?" The time would fall to speak of the public and political combinations and rascalities fallen under my notice from the politicians of Pennsylvania sharing among them, by their votes in the Legislature, the North Branch (State) Canal, which had been completed at the cost of millions of dollars, and should have been made, by assistance of that Legislature, the grand line of manufacturing of all the States; from this grand "grab," to the daily impositions of the authorities of the State, the counties, the townships, cities, &c., in tax and other matters, it is a sad mistake of the English editors that "America has not yet known the tax-gatherer." Previous to this war the industrious, or working, class of the States, were taxed and tarified to twenty times that of the same class for necessities in England. I have to learn on what the latter are taxed by Government, beyond tea and sugar, and these articles are cheaper than in the States. When the thousand "yarns" are spun and worn out, it is such facts as herein stated that must make or mar the nations to be of America.

Bank-street, Sheffield, Feb. 4.

T. BUTLER.

MINERS AND MINING.

SIR,—Suppose we grant that theoretical miners have a balance of facilities for collecting facts in their favour, and that their superior training admits of their reading, and applying the various sciences to the multiplicity of phenomena which they must, as a consequence, correctly observe, why is it that at this date we are without even the rudiments of a correct theory relative to the science of mining? Educated men may keep complaining of the ignorance of the miner, but if they really desire to advance the condition of his knowledge, and thereby make him instrumental in the construction of a theory that shall stand the test of true science, some more effective mode than mere fault-finding must be applied. Let them employ their talents in supplying answers to the questions submitted by your correspondent in his "No. IV." of last week, and then good may be accomplished. I may acquaint Mr. Reay that the ignorant, uneducated man is deserving of the pity rather than the ridicule of the more enlightened. The high and noble mind never condescends to sneer, but, failing to produce a new creation within the narrow cranium, tries all in his power to eliminate its darkness. I do not own the words referred to in Mr. Reay's letter. I saw the errors the moment they appeared, but feeling they were misprints, and finding my copy contained no orthographical errors, I consoled myself with the reflection that a tangent may touch, but can never cut, a curve. A piece of pig-iron, as taken from the furnace, does not look very beautiful under a powerful microscope, but subject it to the chisel, file, and burnisher, it looks as polished and bright as silver. Such handwork, however, does not affect the constitution of the mass—it is pig-iron still. A man may have all the polish that education can give, without having that fine, soft, kindly feeling, that graceful refinement characteristic of a gentleman.

Minsterley, Salop, Feb. 4.

MINER.

P.S.—An ignorant man laid the foundation of the present wealth of Sir Robert Peel by simply saying—"Chalk the bobbins." Educated outsiders failed to discover the secret.

TO MINING SPECULATORS, BOTH YOUNG AND OLD.

SIR,—I am daily receiving letters commenting on mine which appeared in last Saturday's *Mining Journal*. Thinking that many others may hold similar opinions respecting it, I have thought it right to thus publicly reply to the objections stated by the writers. Many others, however, have written to me who are of opinion that my system is a perfectly safe one, and one which they mean in future to adopt.

One writer says, "You have stated nothing but what was known to everyone before—viz., that it is always advisable to sell at a profit, even a trifling one; and that it was always right to sell in a rising market, and to buy in a falling one."

Now, I am perfectly aware that I have stated nothing new as far as that goes, but the method of both buying and selling is, I contend, my own, which I will refer to further on. My great object was to convince speculators that by operating on my system nearly all the risk usually attendant on mining speculations would be done away with, whilst, at the same time, the profits would be something very considerable. If the system be known to speculators, it is also well known that but very few of them follow it, for it requires no little resolution in a speculator to sell even at a good profit when he knows there is a brisk demand for his stock. I know it from my own experience, and everyone knows it who has bought mining shares. "No," he will not sell his shares, he will wait until to-morrow, when the price is sure to be higher—everybody is buying, and the price must rise," &c.

To-morrow comes, and the advance in price has brought hundreds of shares on the market, and, as a necessary consequence, *down goes the price again*. The speculator is now sorry he had not the resolution to take his profit, and be satisfied with it. Within a few days after, a great demand springs up for another share he holds; the price goes up, yet, with all his late experience, he will not sell—the price will be higher to-morrow. Again to-morrow comes, a host of shares are offered for sale, and *down goes the price again*. A third time the same thing occurs, and still the client lacks the resolution to say to his broker, "Sell, I will take my profit."

Let speculators notice how the jobber acts: he buys (say) 100 shares in a mine at 5*s* 6*d*, and if within a few days the shares should be saleable at 6*s*, he sells, and pockets his 10*l*. If the shares go down on the following day, as is frequently the case, he buys them back again, and again sells them directly a rise takes place. He well knows that this system answers best in the long run, although he, of course, does wrong at times in selling so quickly, but he is satisfied with his profit, and has his money at liberty to buy into some other promising mine.

If the speculator would act in a similar manner, and summon up resolution to sell at a trifling profit, instead of resolving to hold on for a larger profit, he would soon be convinced which was the most profitable plan of the two.

Another correspondent writes me, "That he had for many years speculated in about twenty progressive mines, all of which turned out failures but one, which was East Caradon, and that this mine well repaid him for all his losses by the others, and caused him to be a considerable gainer by his mining operations." He then says—"Supposing I had followed your plan, and sold out East Caradon at 20*s* a share, just because I could have made a profit, where should I have been then? Why, many hundreds out of pocket, instead of being a large amount in pocket." He, of course, has arrived at the conclusion that to sell when a profit can be made would be very bad policy.

I have no doubt but that this is the opinion of all who were fortunate enough to have been purchasers of East Caradon shares at a few shillings each, and who held them until they reached the present price of 48*s* each; but let us suppose that out of the hundreds of progressive mines, he had not selected amongst his twenty, East Caradon, but another mine, how, then, would matters have stood? He may consider himself very fortunate that East Caradon happened to be one of the twenty, considering that there were between 400 and 500 other progressive mines to select from, either one of which he might have had instead of East Caradon. I say, it was mere luck to have had that mine amongst his others, as at that time scarcely any mine was thought less of than East Caradon; for it is well known that the shares were difficult to sell at any price whatever—indeed, I have heard of shares having been offered at 1*s* 6*d*, each, and refused. My correspondent must read my former letters again. I still contend, that so long as the advance in price is solely from market operations, it is *new*.

We all know that the common advice of "take your profit" is given whether the price advances from market operations or from an improvement in the mine. I say that "take your profit" must not always be the rule, unless the profit be something very considerable. Both broker and speculator must use common sense both in buying and selling. Let us suppose that shares are bought in a mine at 6*s*, or 6*s* 6*d*, each, and that the reason the shares are selling at this low price is simply because the mine is very poor. Again, let us suppose that, in a few months after the purchase is made, a rich lode is cut in the mine, or levels, and that the shares rise from 6*s*, or 6*s* 6*d*, to 10*s*, or 12*s*, is it, then, right to "take your profit?" I say, no. That it would be the best plan to wait, and see the result of the discovery, as the shares will, in all probability, advance to several pounds each; whilst, if the lode should go off again, it will be but 6*s*, or 6*s* 6*d*, a share lost by waiting. If the shares had a considerable rise, I would in such a case sell. Use common sense. Another speculator writes me—"That if a person cannot get more than 5 per cent. by speculating in mines, he had better leave them alone." I tell him that such a selection of mines may be made that this 5 per cent. may be earned two or three times every quarter; and I repeat the statement I made in my last letter—"that a capital of 5000*l*, may make from 1000*l* to 2000*l*, a year clear profit, with scarcely any risk." Of course, it all depends on the mines the broker selects for his client; but let us suppose he selects as Wheel Uny, Wheel Grenville, North Downs, &c. And let anyone, just for an experiment, take the average price of the shares in each during the last month, and imagine he had laid out 500*l* in each mine, in the manner I pointed out in my last letter—selling whenever he could make 5 per cent. profit, and buying in again when the price declined. I mention Wheel Grenville and North Downs, because it is well known I have frequently written in favour of those mines; and I mention Wheel Uny, not because a profit would have been earned by speculating in it during the last month, as none would have been earned; but because its time is to come—and it will come. Many others I could of course mention, but let those suffice.

A speculator to act on my system should select at least half-a-dozen mines, but one dozen would be still better, and 400*l*, or 500*l*, should be put into each. This would require a large capital, but the man with 1000*l*, must speculate accordingly; still, however, in the same number of mines. The man with 500*l*, should select half-a-dozen, and put 100*l* into each.

To those speculators who prefer highly speculative mines I would recommend those situated in good districts, and which are quite neglected by both the market and the public. Such shares can generally be picked up at a few shillings each. They should be bought for six or twelve months, or until a demand springs up for them, when a mine is in a rich mineral district a demand sooner or later, is sure to arise for them. The purchaser must, however, remember that during the twelve months they

are locked away calls will be made, and must be paid. Such mines should be selected as are fully equipped with machinery, and which have a great deal of work done.

I will conclude by saying that if all speculators were to adopt my system it could not be carried out successfully, and their only chance of gains by mining would then be from what Mother Nature may give them from the bowels of the earth, which is, after all, the only legitimate method of mining. Still I am so well acquainted with human nature that I am convinced not one in a hundred will have the resolution to sell at a small profit, when a brisk demand exists for their shares, caused entirely by market operations. No; they will wait for the top price, and wait too long. My system will, therefore, be adopted by only a few, and those few will not, I am confident, regret it.

A CAUTIOUS MAN.

MINING AS A SPECULATION.

Sir,—Your able correspondent, "A Cautious Man," in his letter published in last week's Journal, advances a statement which, whatever might be its effect upon the old speculator, is, I fear, calculated to deceive many a young one, who, possessing the capital and desire to speculate, lacks the great essential—experience. "Sell when you can get a profit," says "A Cautious Man." Sound advice this, to which many besides myself can testify, and a pity it is not more generally adopted. The greatest mistake, next to buying at too high a price, is holding on too long. But does it follow that by this method of purchasing into "good and safe mines" at, or below, the average price, and invariably selling when they go 5 or 10 per cent. above it, that we thus ensure a profit of "from 20 to 40 per cent.?" With all deference to the experience and judgment of "A Cautious Man," I venture to say "No."

Let a speculator select his shares ever so carefully, it is too much to reckon upon selling them at a profit. Out of ten a dozen will be chosen, "good and safe mines," one, two, or even three may, and probably will, turn out a loss. As many more may hang long on his hands before the minimum profit can be realised. He sells the rest at the maximum profit—10 per cent.; and does he find this, with his dividends, if any, cover losses and calls, and give a result anything like that predicted by "A Cautious Man?" I fear not.

To sell at a small profit and buy again is an excellent rule, but, like others, has its exceptions; and I would say to the young speculator—"If one or two of your mines appear more flourishing than the rest, begin to advance in price, and go to the stipulated 10 per cent. beyond cost price, and if, further, you find this rise is not the result of market operations, and that the prospects for the future are extremely good, then do not sell, pay a call, or, if a prospect mine, and the chances are, instead of 5 or 10 per cent., you may realise from 50 to 100—a large profit, though by no means an uncommon one; and such profits must occasionally be made to cover the losses we all know to be incidental to, and inseparable from, this class of speculation.

Wheat Grenville, the mine to which "A Cautious Man" alludes, affords me an illustration: 18 months ago I bought a good interest in this mine at 12s. 6d. per share. When the shares went to 21s. I was advised to sell. I declined. Then they fell to cost price; calls came, and, as I had sold, from two of my friends for not having sold, as they did, and been content with the profit; but held on bravely until the end of last May, when I sold, and a glance at the Journal of that period will show the brilliant result. Some of my shares, of course, turned out a loss, but on making my usual calculation at the end of Dec. I found my profit on the year's transactions to be exactly 30 per cent.—Feb. 4.

A CAREFUL MAN.

SILVER VEIN MINE, AND ITS MANAGEMENT.

Sir,—I was sorry to read the remarks of Mr. Squire, at the meeting of shareholders, reported in the Journal of Jan. 24, as being directed against Capt. Burn. Practical men of great experience are pleased with what Capt. Burn has done, and think the change of affairs a salvation to the company. What can be a better proof of this feeling than to see such men, residing here, coming forward to buy shares? This never took place during Mr. Squire's management, for the truth is no one here ever believed in the mine, except for some time, but I do not hesitate to say that his knowledge of mining, minerals, &c., appeared so limited as to surprise us Cornishmen that he should ever have attempted to meddle with anything of the sort. A "bal girl" at our mines could have given him an wholesome lesson, by teaching him how to distinguish schist from wolfram, and such information at one time during his stay in Cornwall would have been of great service to him (this is well known to Mr. Squire). Now, is it not surprising that he should trust Capt. Burn with ignorance, and yet possessing so much himself? Besides, his failure of producing silver worth 5000, to 10000, per ton, as he promised (many tons), is quite a proof of the above, as when at last there (or rather the silver) was sold, a few tons of silver, and the greater bulk 31, 13s. after the enormous cost of preparation for the market. The ore now is raised and made ready for sale at a trifling cost per ton. Such a contrast to the former management probably is not very pleasing to Mr. Squire, but I was glad to find it met with the approbation of the directors, and especially our worthy Chairman. This mine is good, and is improving, and I hope the ore will be sold in its natural state, and I have no fear of the result. Lostwithiel, Feb. 4.

A SHAREHOLDER.

THE CARDIGANSHIRE MINE, SILVER MOUNTAIN.

Sir,—It seems to afford Mr. Naymith peculiar satisfaction to break a lance with me on the subject of the Cardiganshire mines; and if this passage of arms can afford him any amusement, without being detrimental to the columns of your Journal, I do not see why I should withhold him the gratification. I would, however, advise him to buckle his armour a little more securely, as it is dangerous to have it so loosely fastened that one's opponent can see how to strike through it at a point of weakness. With reference to the Silver Mountain Mine, most people at all acquainted with the subject are aware that in almost all deposits of ore there are certain quantities of it that scarcely require any dressing at all, and in this mine the metallic formation is so rich that four men working underground, and two women at surface, used to prepare the ore for market when it was worth 14d. per ton at a cost altogether of 5s. 10s. per ton. At Goginam we used to sell ore periodically before any machinery was erected, and at Bynanmore we have just sold 20 tons of ore to Messrs. Sims, Williams, and Co., in lumps, without crushing, at 14d. per ton. If you find your bread ready for use on the bread fruit tree you do not require mills to grind the flour, or hands to move it into loaves. We are, however, preparing steam engines for grinding those parts of the lode that are not readily reducible by hand labour.

Notwithstanding Mr. Naymith's doubts of my assertions, I can assure him that it is perfectly true that I reopened the Goginam Mine when it was quite an isolated spot with respect to water-power, and that it was at my own suggestion, and by my own levelling, that the water was brought down to this mine from the River Camdwr, at the foot of Plynlimmon, a distance of several miles. It was to me, and me only, that the credit, if any, is due for bringing the water from the Llynfyrddon Lakes to the Llesburne Mines, which were almost devoid of water before. It is more easy to understand the theory of profitable mining in Cardiganshire now than it was 30 years ago, when such problems as these, the construction of the best mills and the mode of washing the ore, had to be solved. With these examples before us, it is no more difficult to see one's way from the beginning to the end through the matter than it would be in an old established workshop, with the models and workmen before you, to understand the designs they are carrying out; but it would be quite a different thing if you were called upon to originate these models, and to work out the elements of such designs. When we have completed our arrangements at Silver Mountain Mine I hope that Mr. Naymith will have reason to be satisfied, although I have never heard that Mr. Naymith had anything to do with it in any way whatever.—London, Feb. 4.

MATTHEW FRANCIS.

SMELTING POOR COPPER ORES.—At Adelaide a company has recently been formed, with a capital of 50,000l., in shares of 100l. each, for developing the invention of Capt. R. V. Rodda, to which we have on several previous occasions referred. Capt. Rodda's invention is based on the circumstance that copper matte at 2000° Fahr., while most ores require 3500° at least. The present furnace at the New Cornwall Mine is constructed with three soles, or floors, on the top floor, which is, in fact, the roof of the furnace below it. The ore is first placed to be dried and heated by the surplus heat of the fires underneath. The hot ore, broken to about 1/4-in. gauge, and mixed with about an equal quantity of charcoal, is then let down on to the middle floor, when it is raised to a dull red heat. Communication with the outer air is then shut off, and the combustion of the charcoal is only sustained by the oxygen contained in the ores themselves. In parging with its oxygen the metallic portion of the ore is converted from its friable and compact state into a single and metallic condition, and, at the stage of the process, the charge is let down into the lowest furnace, when the heat is increased till the metal is thoroughly fused, the particles of the metal being found to run together into granules under the influence of molecular attraction. The furnace process is then completed; the charge is drawn, the unconsumed charcoal is separated from the ore by flotation in water, and the granules and metal from the stone by crushing and washing. The crushing and washing are estimated to cost about 5s. per ton with proper machinery, and, even with the rude appliances hitherto available for this purpose, the copper left in the tailings after washing is found to be less than one quarter per cent.

THE NOVA SCOTIA GOLD FIELDS.—A correspondent of the Halifax Chronicle, writing from Goldenville, gives a statement of the quartz crushed by the Pictou crusher, and the results. The quantity, 455 tons 15 cwt. Yield of gold 1180 ozs. 5 dwts. 17 grs. The letter adds: The probable amount of gold produced from other crushers, washings, &c., is about 900 ozs., which, added to the above, gives a total of 2145 ozs. 5 dwts. This will amount, at 410 per oz., to the sum of £88,000, and this is considerably more money than has been spent here in mining operations up to this date, considering the amount of money wasted in the early part of the season by persons too eager to make sudden fortunes, rushing into the business without knowledge or experience. Six months' experience, however, has taught us some wholesome lessons, and capital can now be laid out to much better advantage, and, no doubt, when the real facts with reference to the value of our quartz is more generally known, capital will be more readily invested.

RAMSAY LEAD MINE.—This valuable mine is now in a fair way of relieving the amount of development to which it is entitled, arrangements having been made for its disposal to a company forming in England to purchase and work it. The price to be paid for the mine, 25,000l., is considerably less than mineral properties in the eastern townships with poorer prospects have been recently sold for to the American capitalists, who are acquiring all the more valuable mining lands in that portion of the province. The Ramsay is the only lead mine in Canada that has emitted and sold metal, and during the short time it was worked by the former proprietors it raised more ore than has been got from all the lead mines in the province put together; the ore occurring as galena in large masses exceeding 100 lbs. in weight, and in broad veins, in a great lode of calcareous spar, so soft as to require no powder in the working. It is the opinion of geologists and mining engineers of the highest rank who have inspected the mine that with the expenditure of a moderate capital in sinking the shafts already opened to an adequate depth, the Ramsay will become one of the richest and most profitable lead mines in the world, more than adequate to the supply of the large consumption of this province, which is now obtained from abroad, as it was at one time undoubtedly the richest mine ever opened in America, not excepting the Roscoe, on the south side of the St. Lawrence, and in the same formation, which yielded the first adventurers a profit of £2,000,000, and was the chief source of the great wealth of the Parish family.—Montreal Commercial Advertiser, Jan. 23.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending February 1 was 10,389l. 2s. 7d.

THAMES TUNNEL COMPANY.—Receipts for the week ending Jan. 31 84l. 7s. 4d.; number of passengers, 20,248.

HOLLOWAY'S OINTMENT AND PILLS—DECLINING HEALTH.—The first symptom of departing health should have instant attention and redress, not only for the comfort of the present, but for the happiness of the future. Whatever be the irregularity, wherever situated, however masked, Holloway's remedies will reach it and remove it. The external employment of the ointment over the part affected, and the internal use of the pills will always restore order and ease. Skin diseases, want of appetite, nausea, and biliousness are immediately cured, and healthy functions permanently restored to each organ. The united action of Holloway's remedies over the human frame is so singularly searching, soothing, and curative that few diseases can long withstand the thorough purification they constantly bring about.

Meetings of Mining Companies.

MARIQUITA AND NEW GRANADA MINING COMPANY.

The ordinary half-yearly general meeting of proprietors was held on Jan. 30, at the London Tavern.—Mr. ROUTH in the chair.

Mr. JONES (secretary) having read the notice convening the meeting, the Chairman said the proprietors were aware that the present was not the annual meeting, at which the regularly audited accounts were presented, but the half-yearly meeting, held for the purpose of submitting a statement of the company's operations for the six months, and to show, as far as able, its financial position.

Before, however, entering upon those matters he had to congratulate them upon what they must all consider a most satisfactory feature—be alluded to the cessation of hostilities in New Granada. By the advice of Panama (via New York), to Oct. 15, the news of the victory of Mosquera's forces over the combined chiefs of the reactionary party was confirmed. The New York papers of Oct. 24 state that Mosquera had quite established his Government throughout the United States of Columbia; but that, on the 18th ult., the Conservatives, under several of their generals, 3500 strong, attacked the part of Mosquera's forces under Santos Gutierrez, who was strongly entrenched at La Barahona. The result was the total rout of the former, the capture of a large number of prisoners, and the death of their leader, Giraldo, to whom it had been principally owing that Antioquia had not entered the Union. That state, as well as Cauca, would now become incorporated under Mosquera. The letters received by the West India mail completely confirm the advice from New Granada, via America, that Mosquera's Government had been everywhere successful. It was, therefore, clearly shown that now—and without which the company's works could not be carried on effectually—the peace of the country had been established. He then read some extracts from letters received from the company's agent, which stated that, with the exception of a supply of powder, everything was in a satisfactory state, and that there was every reason to believe in a speedy restoration of the establishment to a highly profitable condition. Referring to the Santa Ana Mine, it was stated that the lode in the 120 continued good between the north and south levels, that the ground was in easier driving, that they were getting some grey silver of a better quality than anything yet raised at that depth, and that they were supplied with funds. He then proceeded to give a statement of the costs and returns (as far as they could be made up) of the different mines. With regard to Santa Ana, the quantity of silver obtained from April to August, 1862, had been 34,596 ozs., the costs had been \$52,471, and the returns \$54,056. With regard to the Marmato Mines—the communications with which had been very irregular—the quantity of fine gold obtained from Feb. to May, 1862, had been 466 ozs., and of silver 284 ozs.; the costs had been \$15,905, and the returns \$11,924. By the costs and returns of the Marmato Mines, it would appear that their operations upon that portion of the company's property were not being conducted at anything like a profit; but he reminded the meeting that there was a considerable quantity of ore not realised, estimated at about \$3000, and he hoped, when the regular advices were received, that it would be found that, although Marmato was in the midst of the revolution, the loss would not be so great as might have been imagined, if, indeed, there had been any loss upon it. As regarded the financial position of the undertaking, he might inform proprietors that the available assets in New Granada on Nov. 13 amounted to 10,263l., and that the balance in London on Jan. 1 amounted to 3980l.; but there was owing in London 7000l. and 8000l. He might say that the reason there was a debit balance on this side was owing to the fact that the remittances from the other side had not been to the same extent as the expenses on this side. The expenses had been considerable—miners and machinery had been sent out; but, on the other hand, they saw that in New Granada the assets were quite equal to what they were, even including the above-named liability; upon the whole, therefore, they were quite in as good a position as when he last had the honour of addressing them. As regarded the mine itself—he referred to Santa Ana—he had much pleasure in stating that the deeper the explorations were extended the richer the mineral became. With regard to this mine, the last year he told them that the great work which had incurred a heavy outlay had been completed to the 60, and that it had been "holed" to the 100; but he had now the pleasure of informing them that this great work was very nearly completed to the 100 fm. level, for it was completed to that depth with the exception of about 8 fms. of "trimmings," and, as the advices last received were dated some three months since, he thought he could now safely say that the full-sized shaft was completed to the 100 fm. level. The directors had ordered a whim and water machinery to be sent out, which, when erected, would enable them to extract the mineral by means of the new shaft. Notwithstanding the abstraction of labour by the revolution, this great work was in a first-rate position; but every great work must be interrupted, and, therefore, the directors had decided that they would be an incalculable advantage in raising minerals by "ships," even to the 100 fm. level; therefore, it was a subject of congratulation that this shaft, which had been cut through solid rock, was so near completion. (Hear, hear.) He believed that in six or eight months the machinery to which he had referred would be sent out, and the whole thing would be in working order. When he met proprietors last year the reserves were estimated at 75,000l.; but since then they had been very much increased. Two estimates had been made as to their present value; but he thought, for prudence sake, they ought to take the lowest, which was 100,000l.—the other estimate, made by their consulting engineer (Mr. Evans Hopkins) valued the reserves at 120,000l. He could now tell them the intention of the directors with respect to Marmato. That property, as they well knew, was in the very heart of the revolution, during the whole of which period the communication had been entirely interrupted, the directors scarcely knowing how the property was progressing. Now, however, as the communications had been opened, the directors had sent out instructions that one of the ablest officers of the company should proceed to Marmato, and carefully examine the whole of the property, and furnish the board with a report of its position and prospects. Mr. Munday, who was the company's superintendent for some years, had a very favourable opinion with regard to Marmato, and considered that, with a little planning, it was capable of producing very considerable profits. Whether that opinion were adopted or not it would be for the board to consider; but the general feeling of the board with regard to Marmato was that it should be entirely secondary to Santa Ana, and that no weight should be thrown upon the latter valuable property by reason of the former. Although the statement he had submitted with regard to the costs and returns from Marmato showed a slight loss, yet he thought that the value of the stock of ore on hand would balance the accounts; but, with regard to Santa Ana, he felt that that was of such great value that he could fairly say that it was a mine which, in all probability, would give them very great returns for years to come. (Hear, hear.) The directors of the revolution had passed away, their great work—Santa Ana—was now complete, and, therefore, he confidently believed that they could now reasonably expect those results for which they had been so long and patiently waiting. If the board received any news it would be immediately communicated to the proprietors. With respect to the directors, no effort would be lost to make this a remunerative concern, and he must confess that he saw no reason why it should not pay excellent dividends. He had always contended that it was but a question of time, and he hoped that their agents would soon begin to send home large remittances, equivalent to a dividend; but, at the same time, he could assure them that no step would be taken by the board in that direction merely to receive the applause of their shareholders (Mr. Evans Hopkins) who would be doing so, and he would make the undertaking permanently productive. Having thanked the meeting for the patience with which his remarks had been listened to, he resumed his seat.

A PROPRIETOR enquired the probable cost of realising the reserves in Santa Ana?

The CHAIRMAN said there had been already incurred a great expense in laying out these reserves, and, therefore, the expense in realising them would entirely depend upon the working of the mine from month to month. The monthly cost will show the value of those returns.

Mr. PHILLIPS enquired what time had been occupied in sinking the new shaft?—The CHAIRMAN replied between one and two years, and that it had cost at least £10,000.

A PROPRIETOR enquired if the debentures were to be paid off next month (February)?

The CHAIRMAN replied that any debentures that came in would be paid off.

A vote of thanks having been passed to the Chairman, the proceedings terminated.

TRYPHENA PENDARVES MINING COMPANY.

A meeting of shareholders was held at the counting-house, on Tuesday, Mr. FRANCIS PRYOR in the chair.

Mr. DUNSTONVILLE (the purser) read the notice convening the meeting.

The CHAIRMAN said the special object of this meeting was to take into consideration the more vigorous working of the mine, but that would in no way prevent any other questions relating to the mine being submitted and fairly discussed; but in the first place, he proposed dealing with the question contained in the notice, and for this purpose he (the Chairman) thought the most desirable course would be to appoint a committee, and proposed that it consist of the following gentlemen—Mr. Frederick M. Williams, Capt. Peter Clymo, and himself, which was unanimously carried.

Mr. F. Pryor having paid for the engine and materials, it was deemed necessary to see that arrangements be made as early as possible to discharge the present liabilities, and a committee from the shareholders was chosen for this purpose, consisting of the purser, Capt. Chas. Thomas, and Mr. Pike, and decided that on that day three weeks all liabilities be paid off.

On the business of the day being concluded, a numerous party sat down to a substantial dinner, heartily wishing Mr. Pryor every success in this his new undertaking.

HENDRE-DDU SLATE AND SLAB COMPANY.

The second annual ordinary general meeting of shareholders was held at the Freemasons' Tavern, on Monday, Sir WM. MILMAN, Bart., in the chair.

Mr. W. T. DAVINIERE (the secretary) read the advertisement convening the meeting.

The directors stated that, in presenting their second annual report to the shareholders, they are happy to say that their prospects continue satisfactory. A slip, which took place in June last, which for several months cut off all access from the portion of the quarry then immediately about to be worked, prevented the realisation of the hopes then entertained of the payment of a dividend at the beginning of this present year. That difficulty having been cleared away, an arched access to the slate has been constructed, and Sir Edward Moore reports that the works have now reached a thickness of 30 yards of good saleable slate, of itself sufficient to constitute a paying quarry. In addition to the Hendre-Idu Quarry, the company have been enabled to acquire a lease of the Dol-wan, which joins it, and which, though only partially opened, is apparently of fine quality, and of great extent. Mr. Williams, the manager of the Festiniog Quarry, has lately inspected the works, at the request of the manager, and reports favourably of them. The services of Sir Edward Moore, as resident manager, have been invaluable; the directors cannot speak too highly of his ability, zeal, energy, and economy.

The report of the resident manager (Sir Edward Moore) stated that, although from unforeseen circumstances, his expectations that a dividend might be declared at the present meeting had not been realised, he could congratulate the proprietors upon the very satisfactory position the quarry has assumed, and, although with the experience of last year he did not venture to fix the date of payment of the first dividend, it could not now be long delayed. The slate now being worked from the face where the slip occurred shortly after the last meeting was small, but almost daily increasing in quantity, and of good marketable quality. Besides the clearance of this slip, a second tunnel (48 ft. below) had been driven through 399 ft. of rock, the last 90 ft. of which was of far superior quality, and would supply a sufficient quantity of slate to constitute a good paying quarry. There was, however, no doubt on the same vein they had a further thickness of 180 ft. The Dol-wan vein (in his opinion) would prove a most valuable acquisition to the company. The quality of the surface slate was pronounced by competent judges to be equal to the best in Wales, and the quantity, for all practical purposes, apparently unlimited. The report concluded by again congratulating the board and the shareholders on the possession of a valuable and most important property.

The report of Mr. Williams (manager of the Welsh Slate Quarry Company) stated that the plan adopted for carrying on the works was, in his opinion, the best and most economical, and, by following the mode of working arranged, he had but little doubt that it would make a paying concern.

The accounts showed cash at bankers and in hands of manager at quarries, 3396l. 8s. 3d.

The CHAIRMAN, in moving the adoption of the report and accounts, considered that, although the actual payment of a dividend had not been declared, the position and prospects of the undertaking were such as to justify them in believing that it would soon be in a productive condition.

Sir EDWARD MOORE (the manager) explained at some length the various points of operation, and referred to the fact that the larger proportion of the capital expended had not been laid out upon the development of the property, but had been paid to the lessees. He expressed the most confident expectations with respect to the permanent success of the undertaking.

Mr. CUNINGHAM enquired if the slate produced was of an average quality?

Sir EDWARD MOORE replied that the quality was equal to any sent into London.

Mr. CLARKE said it could not fail to be gratifying to the proprietors to know that no quarry—operations upon which had commenced about the same time as their own—had made more satisfactory progress towards becoming a remunerative property.

Sir E. MOORE (in answer to a question) stated that, although there was a considerable quantity of slate at Hendre-Idu, there was a much larger quantity at Dol-wan.

The report and accounts were received and adopted, and the retiring directors re-elected.

A special vote of thanks was passed to Sir Edward Moore, for his successful, zealous, able, and economical manner with which he had conducted the operations of the quarries.

Upon the proposition of Mr. CUNINGHAM, seconded by Colonel KENNEDY, a vote of thanks was passed to the Chairman and directors.

The proceedings then terminated.

TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

There has been a very large amount of business transacted during the week, not only for speculation, but for investment, which has given the Mining Shares Market a very animated position. The fluctuations in many shares have been great and sudden, and in several instances without any change as regards the mines. There has been a decline in the standards for copper and tin, which may have some little influence on the price of shares, but no great decline is apprehended. WHEAT SETONS have been in good request, and at firmer prices.—WHEALS BULLER and BASSETT have also been in demand.

TINCHOFF, CARGILL, COOK'S KITCHEN, EAST CARN BREA, EAST BASSETT, GREAT SOUTH TOLGUS, SOUTH TOLGUS, and WEST TOLGUS have improved, and been freely dealt with.—NORTH BULLER, GRAMMER and ST. AUBIN, NORTH BASSETT, WHEAL GRENVILLE, EAST GRENVILLE, and WHEAL UNION have changed hands at better prices.

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BRITISH MINES.

CUDDRA.—Feb. 2, E. Danstar, 1, b. 5; Walker's shaftmen have completed the cutting of the flat in the kills at the 90, but we have not yet commenced taking down any of the lode. We shall now commence to drive the 90, west of the above-named shaft, with all possible dispatch, in order to reach the tin ground gone down below the 75. There has not been any lode taken down in the 75 west since our last report, the consequence of the men being engaged in driving in the kills under the lode.

CUWBREANA.—Feb. 5; In the 30 west, on Thomas's, lode 4 ft. wide, producing good stone lead. In the 10 west, on Crocker's, lode 6 ft. wide, producing good stone lead. In the 10 east, on Tom's lode, is 4 ft. wide, and a very kindly lode, producing good stones of lead. The rise in back of this level will produce 6 cwts. of lead per ft. The stone north of rise will produce 6 cwts. per fm. Floyd's strata, in back of the

MINE ACCIDENT.—At Trevenen and Tremeneheere Mine, on Jan. 2, two men were killed by falling 20 fathoms from a ladder solar, about 6 fathoms from the surface. The cause of the accident was the failure of a guide rail, against which one of the men was leaning, and in falling he pulled the other with him.

FORTUNA.—**Cl. 17: Canada Incon.**—West of Taylor's Engine-shaft: The 100, east of Jewel's winze, is worth 4½ tons per fathom; lode very wide and strong. The same level west is worth 1 ton per fm. The 90, west of O'Shea's shaft, is worth ½ ton per fm. The 80, west of Saez winze, is very hard for driving; a splendid run of ore ground. The 55, west of Castano's winze, is worth 1½ ton per fm.; this level continues to open and the lode has been disarranged by a cross-joint, but is improving again rapidly. The Engine-shaft: The 55, east of Moron's winze, is passing through a bed of ore ground, and, being near the main cross-course, is not likely to improve for some time to come. The same level, west of Kennedy's shaft, is worth 1 ton per fathom; the lode is

are much the same as for some time past; and if the same prospects continue, the next sampling will exceed the last. We weighed off, on the 80 Inst., Nov. and Dec. ore, which was 152 tons 13 cwis. 2 qrs. We have commenced cross-cutting north in the 70, on the eastern mine, in search of a branch, which is gone off in the above direction in the 60, about the same point.

KESWICK.—J. Postlethwaite, Jan. 31: The end of the adit level is in very hard place around: the stratum is of a stronger and harder character than we have seen for

NORTH MINERA. Feb. 5; Cauter Lodge: The driving north-east is worth 15¢ per fm. The stope in the side of the 45 fm. level is worth 10¢ per fm. The driving from the back of the 15 is worth from 20¢ to 30¢ per fm. The stope in the back of the 15, west of eastern shaft, is worth 8¢ per fm. The driving north-west of eastern shaft is worth 8¢ per fm. The stope in back of the 15, east of eastern shaft, is worth 17¢ per fm.

is sunk 4 fms. under the 133; the lode in the bottom of said shaft is small, resting

occasional stones of tin, but not of much value; the ground is clearer of spar, and looking kindly for the production of tin. In the 123, east of the same shaft, Allen's branch is yielding a little low price tinstuff. In the 123, east of the same shaft, Allen's branch is worth 56l. per fathom. The winze sinking under the same level, towards Allen's branch, is worth 61. per fathom; we expect this will be communicated with the level below next week. In the 113, east of the same shaft, Allen's branch is worth 20l. per fathom. The stopes in the back and bottom of the same level, on Allen's branch, are worth, on an average, 12l. per fathom. In the 103 cross-cut, south of Allen's branch, towards the engine lode, the ground is a little wetter. The stopes in the back and bottom of the same level, on Allen's branch, are worth on an average 10l. per fathom. There is no change to notice in the cross-cut north of the same level, towards Allen's branch. The men are now engaged opening the new engine-shaft in the 113 fm. level for main-roads, &c.

WHEAL UNITY CONSOLS.—W. H. Reynolds, Feb. 3: There is no change of importance since my last. We are pushing on three or four points referred to in that report as fast as possible, and hope soon to have report of a discovery.

WHEAL UNY.—S. Conde, M. Rogers, Jan. 31: Tin Lode: The engine-shaft is sunk to the 110, and we have set to cut a pit by nine men, at 10l. per cubic fm. The 100 is driving west of engine-shaft, by four men, at 7l. 10s. per fm., worth 16l. per fm. for tin. The 90 is driving west of incline shaft, by four men, at 12l. per fm., worth 5l. The 80 is driving east of engine-shaft, by two men, at 3l. per fm., worth 7l. The 40 is driving west of No. 3 shaft, by four men, at 6l. 10s. per fathom; the lode is producing stones of copper ore, but not enough to value. The 55 is driving west, by four men, at 4l. per fm.; the lode is of a promising character to improve, composed of quartz, mende, and copper ore, but not to value. The 55 is driving east, by two men, at 6l. per fathom, worth 16l. per fm. for copper and tin. The lode in the winze is sinking below the 58, west of No. 3 shaft, is worth 12l. per fm.; this winze we have suspended for the present, and have put the men to stop the back and rise to hole to the winze east of shaft. The new engine-shaft is sunk 34 fathoms from surface; sinking by nine men, at 23l. per fathom.

WORVAS DOWNS.—R. Harry, Feb. 4: All our operations are in regular progress, and no change of importance has occurred in any part of the mine during the past week. Our month's sale of tin will be about 2½ tons.

YARNER.—R. Barkell, Feb. 4: The engine-shaft is being sunk below the 40 as fast as possible; the ground is congenial for copper. No improvement in the 40 west. The eastern stopes is not looking quite so good. The western stopes is looking well, and maintains the late improvement, and is still yielding from 3 to 4 tons per fathom. The pitch at the 40, east of shaft, will yield 2 tons per fathom. The lode in the 30 west, on north lode, is 1 foot wide, but poor.

MINERS' ASSOCIATION OF CORNWALL AND DEVON.—The general meeting of subscribers and supporters of this association was held at Redruth on Monday. Mr. Hunt read the report of the council and the financial statement, which showed a debit balance of 251l. 10s. 8d., the debit balance brought forward from the previous year being 189l. 5s. 4d. During the year the progress has been, on the whole, satisfactory. Mr. F. H. Trevithick remarked that reference to the teaching of dialling, surveying, assaying, &c., any one of which is found by experience to take a person's whole time and attention to acquire a competent knowledge of. He did not discover that the working miner had been brought to appreciate the benefits or usefulness of the association; it had occurred to him whether it would not be desirable to offer prizes. Mr. R. T. Grylls stated as one reason why miners do not avail themselves of the advantages of the association is, that they do not as a class see the advantage of the knowledge which it professes to impart; and how should they? They do not find that knowledge is a stepping-stone to promotion. They do not find that the instruction which is afforded here is any stepping-stone to situations in the county. A grand stimulus would be given to the miners if it could be shown that by their acquiring a certain amount of knowledge the door which led to the situations available on the mine would be thrown open to them. It has not been so, however, nor have we any reason to hope that such will be the case. If it had been so, working miners would have overcome all difficulties, and would soon have made themselves masters of all the association can teach. He was of opinion that if greater encouragement were shown to the miner, and the present system of obtaining situations by influence were abolished, the association would receive a much larger amount of support from working miners generally. Mr. Hunt, in reply, stated that the association never contemplated or desired to make persons attending the classes scientific chemists or mineralogists, but only to place in their hands the tools and the knowledge which would enable them to detect the character and quality of the ore that may be brought within their reach. As an illustration of the disadvantage and positive loss which the working miners often suffered from the want of this knowledge, he stated that a Cornish miner, who was working abroad, had sent him 3 lbs. weight of what he called "native lead." On subjecting it to the blow-pipe, however, he found that it was chloride of silver, worth many pounds, and the locality where it was found was now being worked for silver. Mr. J. St. Aubyn, M.P., Mr. Cady, the Chairman (Mr. Charles Fox), Mr. Hunt, the Rev. J. Bannister, and others having addressed the meeting the proceedings terminated.

INSTITUTION OF MECHANICAL ENGINEERS.—The sixteenth annual general meeting of members was held on Jan. 29, at the house of the Institution, Newhall-street, Birmingham.—Mr. Charles F. Beyer, vice-president, in the chair. The secretary (Mr. W. P. Marshall) having read the minutes of the previous meeting, the annual report of the council was then read, which showed the very satisfactory progress of the institution during the past year, and its prosperous condition, with a considerable increase in the number of members, referring also to the large and important special meeting held in London last summer, during the period of the International Exhibition. The annual election of officers then took place. Mr. Robert Napier being elected president of the institution for the ensuing year. Several new members were also elected. The first paper read was a "Description of the apparatus used for sinking pits for iron railway bridges in India," by Mr. Joseph F. Strong, of Allahabad. The next paper was "On a type composing and distributing machine," by Mr. Wm. H. Mitchell, of London. The meeting then terminated. In the evening a number of the members and friends dined together, in celebration of the sixteenth anniversary of the institution.

BRISTOL AND WEST OF ENGLAND WAGON COMPANY.—The fourth half-yearly meeting of shareholders was held at the Commercial Rooms, Bristol, on Monday, William J. Perry, Chairman of the board of directors, presiding. The report was highly satisfactory, the directors recommending a dividend of 9 per cent., leaving a balance of 33l. 12s. 8d. to be carried to the next half-year's account. The depreciation fund amounts to 1210l. 13s. 8d., and the whole of the formation expenses have been paid off. The report was adopted, and the dividend as recommended declared, after which the meeting was made special, and the name of the company changed to that of "The Bristol Railway Rolling Stock Company (Limited)," and it was determined to extend the business of the company by authorizing the directors to purchase and sell upon redemption terms railway engines, and to purchase and let or sell passenger carriages, and any other railway stock, upon such terms as they shall think proper.

FATAL ACCIDENT IN THE FOREST OF DEAN.—An enquiry, which has created great interest among colliery proprietors and miners in the Forest, was brought in a close last week, touching the death of John Carpenter, a collier, employed by Mr. Henry Crawshaw at the Lightmoor Colliery, Cinderford. It appeared that on Jan. 16 the deceased and other men were being drawn up the pit in question, having previously given the proper signals, which, however, were not answered from the engine-house. On arriving at the mouth of the pit, and before the men had time to land, the cart began to descend, and the deceased in attempting to jump out fell to the bottom of the shaft, and was killed. It was alleged that there had been an infraction of the rules at the colliery, and that a proper indicator had not been provided. A most searching investigation was, therefore, made into all the circumstances of the case, and the enquiry occupied four days. Mr. Brough, the Government Inspector, at the request of the coroner, was present, and gave his opinion that the colliery was in a most satisfactory state, but that there was not a proper indicator, and that there had been a great infraction of the rules. On the last day of the enquiry, after an hour's consultation, the jury returned the following verdict:—"We find the deceased was accidentally killed by falling down Lightmoor Pit on the morning of Jan. 16. We find, also, that the general and special rules have been violated.—No. 12 general rule, in no indicator being provided to show the load in the pit. Special, in rules to banksmen, hangers-on, and others.—No. 3, in allowing any other than the hanger-on to make signals; No. 4, by allowing men to ascend the shaft without giving a hanger-on and bankman; No. 6, by men getting out of the carriage before it comes to rest. In rules for engine-men and others.—No. 6, in allowing persons to be in the engine-house. We further desire to call the attention of the Inspector of Mines to the violations of the rules, and hereby request the coroner to forward him a copy of this verdict."

COLLIERY ACCIDENT—THREE MEN KILLED.—A fatal accident has occurred at Mr. John Rowbottom's colliery, at Heath Charnock, near Chorley. Three men, named George and William Bibby (brothers), and Francis Bateson, were at work at the bottom of the pit, when a mass of stone, weighing about 50 tons, suddenly fell from the roof, and crushed them to death.

ALUMINATE OF ALKALIES, AND THE MANUFACTURE OF IRON.—An invention has just been patented by Mr. C. Cochrane, of the Ormsby Ironworks, Middlesbrough, which relates to improvements in the manufacture of aluminate of soda and aluminate of potash. Blast furnace slags powdered are mixed with a salt, usually carbonate of soda or potash, and submitted to a high temperature, but below the fusing point. The resulting product is washed, and the aluminate is obtained by evaporation. Mr. Cochrane states that clay and lime, or limestone and chalk, may be used instead of blast furnace slag. The same gentleman also proposes to use the aluminate of potash or of soda to improve the quality of iron.

ECONOMIC ILLUMINATING OIL.—An improved and economic burning oil has recently been patented in this country by Mr. B. Hebard, of Dorchester, Mass., U.S. The compound consists of four parts of fuel oil, one part of refined petroleum, paraffin or coal oil, and about one part of alcohol or methylated spirit. The fuel oil is washed with water, and upon the water being drawn off the petroleum is added, and then the alcohol. The result is that chemical combination takes place, and a good burning fuel is produced.

THE TRADE IN CRINOLINE.—It would hardly be believed how important an industry has sprung from the fashion of wearing crinolines, if there were not statistical documents to prove the fact. The total spring for petticoats amounts to 4,500,000 lbs. weight per annum for France alone, 2,400,000 lbs. for England, and 1,200,000 lbs. for the rest of the world. These springs, covered with cotton, are sold at the rate of 1 1/2 pence per lb., which gives an average of 10,500,000 f. annually. The cotton employed in covering them is sold at about 30f. the 200 lbs., which makes the sum 1,200,000 f.

An American gentleman, Mr. J. L. Linton, has lately visited Paris for the purpose of submitting to the French Government his new method of generating steam. Instead of the ordinary fuel he uses petroleum oil, or, should that be wanting, ordinary coal oil; and, as the machinery which he employs can be easily applied to the steam-engine in general use, he claims the merit of effecting a very considerable saving.

To Directors, Solicitors, Secretaries, &c.

IMPORTANT TO ALL CONNECTED WITH PUBLIC COMPANIES.—Now ready, price 2s. 6d., A HANDY BOOK OF WHAT TO DO AND HOW TO DO IT, IN ORDER TO FORM ANY MERCANTILE, MINING, AND OTHER JOINT-STOCK COMPANIES. Designed as a PRACTICAL GUIDE for Projectors, Promoters, Directors, Shareholders, Creditors, Solicitors, Secretaries, and other officers. By THOMAS TAFFING, Esq., of the Middle Temple, Barrister-at-Law. London: Published at the Mining Journal office, 26, Fleet-street, E.C., and to be had of all booksellers and newsmen.

THE MINING MARKET; Prices of Metals, Ores, &c.

COPPER. £ s. d.		
Best selected.....p. ton	92	0 0 —
Tough cake.....	89	0 0 —
Tin.....	89	0 0 —
Burra Burra.....	96	0 0 —
Copelo.....	96	0 0 —
Copper wire.....p. lb.	0 1	0 1/2
ditto tubes.....	0 1	0 1
Sheeting & bolts p. ton	96	0 0 —
Bottoms.....	101	0 0 —
Old (Exchange).....	82	0 0 —
IRON. Per Ton.		
Bars, Welsh, in London..	6 7	6 6 10 0
ditto, to arrive.....	6 7	6 6 10 0
Nail rods.....	7	0 0 —
Stafford, in London.....	7	10 0 —
Bars.....	7	6 0 8 0 0
Sheet, ditto.....	7	6 0 8 10 0
Sheet, single.....	9	5 0 9 15 0
Pig, No. 1, in Wales.....	8	10 0 4 0 0
Refined metal, ditto.....	4	0 0 5 0 0
Bars, common, ditto.....	5	15 0 —
ditto, merchant, in Tees.....	6	10 0 —
ditto, railway, in Wales.....	5	12 6 —
ditto, Swed. in London.....	11	10 0 12 10 0
To arrive.....	11	15 0 12 10 0
Pig, No. 1, in Clyde.....	2	14 6 3 0 0
ditto, f.o.b. in Tees.....	2	8 0 2 10 0
ditto, f.o.b. in Tees.....	2	5 0 —
Staffordshire Forge Pig.....	—	—
Welsh Forge Pig.....	—	—
LEAD.		
English Pig.....	21	5 0 23 0 0
ditto sheet.....	21	15 0 22 0 0
ditto red lead.....	22	15 0 23 0 0
ditto white.....	28	10 0 30 0 0
ditto patent shot.....	23	0 0 23 10 0
Spanish.....	20	0 0 —

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—The heavy fall in copper, by creating a considerable stir in that metal, has imparted a greater appearance of animation to the market than has been seen for some time past; prices generally are firmer, and in some instances assume an upward tendency; the Metal Market, altogether, has a decidedly less gloomy tone, and it is to be hoped no superintention of dullness will occur again to clog the wheels of our trade.

COPPER.—In accordance with our anticipations mentioned in last week's report, smelters of English copper on the 3d inst. announced a decline of 9l. per ton, making present price 96l. for manufactured (equal to 104d. per lb.), and 89l. for cake, tile, and ingot. Although a decline in price was pretty generally expected to take place, it was not considered probable that more than 5l. per ton would be conceded. So large a drop has caused a great demand, and manufacturers have already nearly filled their books with orders at present prices. Foreign has, of course, been affected by the reduction in English, but not to such an extent. There are strong buyers of Burra Burra at 95l., but sellers have faith in the market, and are disinclined to realise at this price. Kapunda held for 98l. and upwards.

YELLOW METAL.—Simultaneously with copper, the fixed price of yellow metal was reduced 3d. per lb.—viz., to 8½d. The actual selling price has been but very little altered by the decline, for previously sheathing was selling at 8½d., and braziers sheets at 7½d. to 8d.; and we have not yet heard of any sales having been made below these figures. The discount allowed for cash on shipping orders for sheathing is now reduced to 3 per cent.

IRON.—Railway bars remain quiet, at 5l. 10s. to 5l. 12s. 6d. in Wales. Merchant bars in fair request, at 5l. 10s. to 5l. 15s. at the works, and 6l. 7s. 6d. delivered f.o.b. in London. Staffordshire descriptions in good demand. Makers of hoops very full of orders; full list prices readily obtainable for first qualities. Swedish bars are not in excessive supply, but the demand being limited prices remain without improvement—11l. 10s. to 11l. 15s. for ordinary specifications. Fine sizes realise higher rates. Scotch pigs have scarcely moved during the week; market closes 54s. 6d., m. n.

SPELT.—Sales continue to be made at 18l. 5s. cash for spot parcels, and 18l. 10s. for spring shipment, at which rates there is a tolerably firm market. The stock in London has been reduced nearly 800 tons during the past month, which in itself is a favourable sign. The stock on the 31st ult. amounted to 4752 tons, against 5530 tons on Dec. 31 last year.

LEAD.—There has been a considerable demand for WB pigs, which has greatly reduced the stocks, and caused an advance in price of about 10s. per ton; present quotation, 23l.; ordinary soft quality is unaltered; price firm, at 21l. 6s. Pipe in fair request; sheets and shot dull; Spanish pig, 20l.

TIN.—English remains steady, at fixed rates. In foreign there has been more doing, at about 120l. cash, and 121l. three months prompt for fine Straits. In Banca, business is reported in Holland at 71½ fl., equal to about 124l. laid down here.

TIN-PLATES firm at quotations. Shipments to India and China are rather on the increase. The American demand continues good.

THE SCOTCH IRON TRADE.—Since the annual circulars were issued, the stock of pig-iron has increased in Scotland about 35,000 tons, and it is now upwards of 740,000 tons. The shipments, foreign and coastwise, this year were 30,467 tons, against 44,729 tons in the same period of 1862, and thus show a decrease already of 14,262 tons. Though the production continues fairly to overwhelm the demand, and money has recently advanced 2 per cent., the price has as yet only fallen about 6d. per ton. Large sales have been made at 56s. to 54s. 9d. per ton three months open, and 53s. 6d. to 53s. 9d. per ton cash. The price to-day (Feb. 5) is nominally 54s. 3d. cash, against 49s. 6d. twelve months ago, when the stock was 150,000 tons less, and the prospects of the trade brighter and better than they are at the present time.

GLASGOW, FEB. 2.—The almost uniform tone of expectancy that characterised the various trade circulars at the beginning of the year, despite the ponderous figures with which they were charged, tended, in some degree, to impart a little more animation to our market than marked its close in December. And when we consider the varied interests that are involved in an early termination of the American war on the one hand, or prolongation of it on the other, we need not be surprised that every new phase which that contest assumes should be made subservient to whichever interest it is calculated more immediately to affect. To such influences we attribute some of the fluctuations of our market during the past month, and although we close very near to the point at which we opened, it is not because there is less of expectancy now, but by reason of the preponderating influence of dearer money, diminished exports, and ever accumulating stocks. Moreover, we may reckon upon the latter causes of depression continuing so long as prices here are maintained by speculation beyond their legitimate level, whereby other districts not similarly affected are enabled to find not only a sufficient outlet for their produce, but to augment their deliveries in much the same ratio that ours are curtailed by reason of the disparity in price. In confirmation of this we have but to refer to the returns from the Cleveland district, from which we learn that last year their production exceeded that of 1861 by 98,829 tons, and that deliveries by 119,238 tons, whereas here the deliveries fall short of the production by 100,000 tons. The shipments last month are the smallest we have had since 1859, and less than those of the corresponding month last year by 894 tons. The returns were in January, 1863, foreign, 10,204; coastwise, 15,654=25,858. January, 1862, foreign, 9787; coastwise, 25,025=34,812. January, 1861, foreign, 11,629; coastwise, 28,207=39,836 tons. The local consumption continues good; nevertheless, there is a wide margin between supply and demand. The labour question again occupies attention, and although there are no signs of immediate concession on the part of the men, we do not anticipate any very lengthened or wide-spread contest, seeing that the masters have combined to assist those whose men are on strike. The opening price last month was 54s. 3d.; the maximum, 56s. 6d.; the minimum, 53s. 9d.; the closing, 54s. 3d.; and the average, 54s. 6½d.; against 48s. 7d. in January, 1862, and 49s. 1d. in January, 1861.

—ANDREW WOODROW AND SON.

THE TIN TRADE.—Mr. N. Breebaart (Gill and Co., Amsterdam), under date January 31, writes:—During the first half of this month the market remained without animation. There were no sellers below 69 fl., and this price was obtained for immediate wants. Towards the middle of the month the demand became, however, very active, was supported for some time, and gave rise to considerable transactions. In the beginning some thousands of slabs changed hands at 69 fl.; later, a few more thousands were disposed of at 69½ fl. and 70 fl., and at last 70½ fl. was paid. After those transactions the market calmed down again, and latterly holders were more disposed to give way a little, the last quotation being 70 fl., at which 1000 slabs were sold this morning.

Stock of Banca tin on warrants on Dec. 24.....Slabs 69,740 53,971 65,214

Deliveries in January.....9,335 8,105 4,123

Stock on warrants January 31.....60,405 48,866 61,091

Stock in hands of Trading Society for their annual sale.....75,950 81,630 102,615

Amongst the sales of this month there are some few for export, but the greater part were made on speculation, to which the improvement must principally be ascribed, and as there are usually two sides to this question we shall leave the facts to develop themselves, without pronouncing a personal opinion as to the future. According to the last accounts from Singapore, the demand had subsided a little, but up to that date they had continued to pay a high price (131s. 6d. on board, freight included), and to ship to China and Japan nearly all which would otherwise have been directed to England and else-

where. For some time to come the supplies of Straits in Europe can, therefore, not be large, and this, as a matter of course, must influence the stocks, which, especially in London, had accumulated to an unusual extent, but which probably will have been reduced already a little by all the transactions which have taken place during the course of this month. The statistics will shortly enable us to judge of this matter more clearly. In the nature of the business there is still very little alteration. Besides England, Germany has made a few purchases, but in general the consumers buy only from hand to mouth. The deliveries have, however, been very satisfactory, and our statistics are, in consequence, more favourable than they were a month ago.—P.S. During the course of this day a further quantity of 1500 slabs have been sold at 70 fl., and 500 slabs at 70½ fl., and there are no more sellers below the last quotation.

BOSTON, JAN. 19.—There is nothing doing in Sydney or Picton Coal, and prices are nominally the same. In anthracite steady retail sales at 49 per ton. Pig-iron is very firm, and prices are a shade higher. The sales of Scotch, Gartsherrie, and other brands No. 1, have been at 23s. 6d. to 23s. per ton, cash and four months. In American pig the sales have been at 36s. to 38s. per ton, cash and four months. Bar and sheet iron are firm, and held at full prices.

NEW YORK, JAN. 21.—The demand is moderate for domestic Coal, and the market is heavy; sales from the yard at 87 to 88 per ton of 2240 lbs. Foreign is plenty, and in good demand; sales of 300 tons of Scotch steam on private terms; 250 tons of Splinth at 86s. 50 to 87s. cash; 100 tons of Liverpool Gas Canal at 23s. 25 to 24s. of Liverpool Orrel at 86s. 50, and 645 tons of West Hartley at 86s. 75, cash. Scotch pig-iron is scarce, and firmer; sales of 150 tons at 23s. 50 to 35. American pig has been in better request for future delivery, with sales of Nos. 2 and 1, deliverable the next two months, at 32s. to 34s. per ton, cash; other descriptions are also in very light supply, and the market is buoyant.

THE MINING SHARE MARKET this week has been subject to a species of

panic, consequent on a fall in the price of copper of nearly 9l. per ton, and which was announced on Wednesday. The standard for copper ore has also declined to 117l. for 6½ per cent. Various reasons are given for this move on

the part of the smelters, and it is generally believed that it has been owing to the expected arrival of a large quantity of foreign copper. Although this decline may temporarily affect deep and expensive mines, we do not see in it sufficient cause for the general tumble in shares, though it was only natural to suppose that it would be made the most of for market purposes. Lead continues firm, and an advance is daily expected in tin, so that these circumstances in some measure counterbalance the fall in copper.

The chief business has been in Wheal Harriett, Drake Walls, East Caradon, North Roskear, Bryn Gwio, South Tolgus, South Crofty, North Crofty, Wheal Grenville, East Russell, West Tolgus, Wheal Seton, North Basset, North Downs, Cook's Kitchen, Great Wheal Fortune, Cargoll, Pendeen, South Herodsfoot, Stray Park, West Caradon, Wheal Basset, Wheal Buller, Wheal Ludcott, Wheal Unity, Wheal Crebor, Marke Valley, West Rose Down, &c. East Caradon shares have not been quite so firm, and leave off 47 to 47½; the 50 east has improved to 90l. per fm.; the 60 east, 20l. per fm.; the 70 east, 30l. per fm.; the 70 west, 40l. per fathom; the new lode, in the 60 east, 25l. per fathom; the 70 east, 50l. to 55l. per fm.; the 70 west, 20l. per fm. Marke Valley shares have been more dealt in, at 8½ to 9½, and leave off 8½ to 9. Wheal Buller shares advanced to 90, and leave off 80 to 90. Cook's Kitchen shares have been in demand, and leave off 33 to 34. Cargoll shares also in demand at 46 to 47½. Wheal Basset, 75 to 80, ex div.; at the meeting, on Tuesday, a dividend of 1l. per share was declared, leaving 812l. 17s. 3d. in hand; the profit on the two months was 450l. 3s. 10d. A cross-cut is being driven in the 75, to cut the carbons, from which large quantities of tin were obtained from the levels above. Calvadack, 6 to 6½; Aradon Consols, 18 to 20; Carn Camborne, 15s. to 17s. 6d.; Clifford Amalgamated, 21 to 23; Devon Great Consols, 51s. to 52s. South Tolgus shares suddenly advanced from 53 to 63, leaving off 65 to 67; at the meeting the accounts showed a loss of 32l. 17s. 4d. on the two months, and a balance in hand of 489l. 6s. 9d.; the sales for the next two months will be 400 tons of ore. East Basset, 51 to 53; East Carn Brea, 11½ to 11½; East Rosewarne, 3½ to 3½; Grambler and St. Aubyn, 16 to 18; Great Retallack, 10s. to 12s. 6d.; Great South Tolgus, 6½ to 7; Herodsfoot, 49 to 51; Hingston Down, 2½ to 3. Wheal Harriett shares have been very largely dealt in, and have fluctuated very much; on Wednesday they were done at 5½ to 6, previous to the announcement of a telegram from the mine, stating that the lode in the 115 end had fallen off to 20l. per fathom; this coming in connection with the fall in copper, caused a fall of nearly 30s. per share, but a rally took place. The agent, in reference to the decline in the value of the end, writes that it is the nature of the lode, and in a short time it may improve again, and in the bottom of the level there is a splendid lode going down for 3 fms. in length, worth 100l. per fm. Lady Bertha, 20s. to 22s. 6d.; North Basset, 3½ to 3½; North Crofty, 4½ to 4½; the mine will sell 10 tons of black tin this month, and is preparing a good parcel of copper ore. North Roskear shares have fluctuated very much, from 48 to 52, and leave off 49 to 51; various reports are in circulation as to the falling off in the winze, &c., but the latest report from the agent values the 184 at 65l. per fm.; the winze, 50l. per fm.; the 174, 70l. per fathom; No. 1 stopes, 50l. per fathom; No. 2 stopes, 40l. per fathom; and the 140, on Reeves's, or tin lode, 35l. per fm. North Downs shares, after reaching 3½ to 3½, suddenly declined, and leave off 2½ to 3½. North Tresskerby, 4½ to 4½; New Wendron, 4 to 4½. Great Wheal Fortune, 31 to 32; at the meeting a dividend of 15s. per share was declared; on Carmel lode the engine-shaft has been sunk 2 fathoms below the 90; the lode in the rise in back of the 90 is worth 35l. per fathom, and other parts looking well. In 12 months ending November, 1862, the ground removed was 1192 fms. 3 ft. 3 in.; average price, 4l. 6s. 6d. per fm.; tinstuff sampled, 247,169 sacks; average produce, 3 cwt. 1 qr. 17 lbs. per 100 sacks; tin sold, 444 tons 3 cwt. 3 qrs. 7 lbs.; dressing cost, 5l. 10s. 9d. per ton. Pendeen, 6 to 6½; Providence Mines, 43 to 44. Wendron Consols, 10 to 11; at the meeting the accounts showed a balance of 1153l. 1s. 11d. against the mine, and a call of 1l. per share was made. The report states that upwards of 3000l. have been expended on Bal Dees part of the mine, and while they do not anticipate any further outlay there, they rely on considerable returns, and other parts of the mine also have improved, so that by paying off the present balance by a call, an early return to dividends may, we hope, be anticipated. Gonamena, 2½ to 3; at the meeting a call of 2s. 6d. per share was made; the accounts showed 178l. 13s. 2d. in favour of adventurers. The 90 west, on Sarah's lode, is within a short distance of where, above, it would yield 4 tons of ore per fathom. The report also states that more than 46,000l. worth of ore has been sold from the mine, and none of it came from below the 90. South Caradon Wheal Hooper, 18s. to 20s.; South Herodsfoot, 5½ to 5½. East Grenville, 47s. 6d. to 50s.; at the meeting the accounts showed liabilities over assets of 725l. 9s. 5d., and a call of 2s. 6d. per share was made. The tin sold during the quarter realised 539l. 10s. 5d.; copper, 92l. 18s. 8d.; and the report of future prospects favourable. South Crofty shares, after reaching 39, have been more freely offered, and leave off 35 to 37. Stray Park, 40½ to 41½. Tamar Consols, 17s. 6d. to 22s. 6d., and enquired after. Tolcarne, 3½ to 3½. Wheal Crebor, 18s. to 20s.; at the meeting a call of 1s. 6d. per share was made. The mine is improved to 3 tons of ore in the shaft, and 55 tons of good ore sampled. Trumpet United, 9s. to 11s. West Caradon shares advanced to 37, buyers, and then declined, and leave off 33 to 35, sellers. West Seton, 280 to 290; West Tolgus, 65 to 67; Wheal Grenville, 5½ to 5½, and in request; the 182 tons of ore realised rather less than 1200l., or about 6l. 10s. per ton all round. The fall in the standard since it was sampled making a difference of about 14s. per ton. The mine has improved in the 80 to 3 tons of good ore per fm.; the rise above the 80, to 3 tons per fm.; the tin lode has also improved to 30l. and 40l. per fm. Wheal Grylls, 34 to 36; Wheal Kitty (St. Agnes), 4½ to 4½; Wheal Margaret, 38 to 40; Wheal Mary Ann, 16 to 17. Wheal Seton shares have been freely offered, and leave off 220 to 225. Wheal Trelawny, 17½ to 18½; the mine has sold 60 tons of silver ore, at 27l. per ton. Wheal Ludcott, 8½ to 9; Wheal Unity, 10s. to 11s.; Wheal Uny, 7 to 7½. Wheal Agar shares have advanced to 5½, 6½, and in demand. Drake Walls shares have fluctuated very much, and leave off 2½ to 2½. East Russell shares, after declining to 5½, improved on Friday to 5½, 5½. Bryn Gwio, 35 to 36. We direct attention to a lot of forfeited shares in the Garreg Mine, which will be sold by public auction by Messrs. Thomas and Son, on Thursday next. The mine is in Holywell, Flintshire, is well provided with machinery, has sold upwards of 100 tons of lead ore, and at the present moment exhibits some promising features. The shares, upon which more than 5l. per share have been paid, will be sold without reserve.

On the Stock Exchange a moderate amount of business has been transacted in Mining Shares during the week. The following quotations were officially recorded in British Mining Shares:—East Wheal Russell, 5½, 5½; Wheal Ludcott, 9½, 9½; East Caradon, 49, 49½, 47½; North Wheal Basset, 3½, 3½; Tincroft, 15½, 15½, 16; West Caradon, 36, 37½; North Wheal Crofty, 4½; Wheal Basset, 85; Wheal Union, 5½; Wheal Trelawny, 17½; Great Wheal Vor, 5½, 6½; Grenville, 5½; Hingston Down, 3; North Downs, 2½, 2½; Tamar, 4½; West Basset, 18½. In Colonial Mining Shares the prices were:—Dun Mountain, 1; Scottish Australian, 1½, 1½; Port Phillip, 1½; Kapunda, 1½. In Foreign Mining Shares the

prices were:—Cobre, 22; East del Rey, 14, 14; United Mexican, 5; Fortuna, 4; Montes Aures, 3, 2, 3; St. John del Rey, 5, 5, 5.

Vigra and Clogau shares closed at 27, 29; East Clogau, 1/2 dis. to 1/2 pm.; West Clogau, 1/2 dis. to 1/2 pm.; St. David's, 1/2 dis. to 1/2 pm.; St. Cuthbert's, 1/2 pm.; Nova Scotia, 1/2 dis.; Cape of Good Hope, 1/2 pm.; Ramsey Lead Mining and Smelting Company, 1/2 pm.; Dolwrynog, 1/2 dis. to 1/2 pm.; East Cambrian, par to 1/2 pm.; and Don Pedro North del Rey, 1/2 pm.

IRISH MINE SHARE MARKET.—Shares in mines have again been the conspicuous favourites both for investment and speculation, and each of our readers as have regulated their transactions by the opinion we have repeatedly given for their guidance, have further reason for congratulating themselves on the result of their operations. Not only have the shares of the Wicklow Copper Mining Company firmly maintained their gradually increased value, but have this week made a further rise of fully 50s. on last week's closing price of 42 1/2 (54 paid), and are now freely taken at 44 1/2 10s. Connarres, which were last quoted at 20s. 6d., have improved, and several dealings have taken place in them at 20s. 9d. and 20s. ex new, being the best proof of confidence in the prospects of the mine. This may also be said of Caryfort shares, which were not procurable under last week's price of 18s. 6d., nor those fully paid under 40s. Mining Company of Ireland shares were slightly affected by the greater attention paid to the Wicklow Copper shares, and gradually dropped to 19 1/2, 19 1/2, 2s. 6d. (7 1/2 paid). General Mining Company for Ireland shares were in fair request and closed at 5 1/2 (4 1/2 paid), being an improvement of 5s. on last week. In Carbery, Crookhaven (county Cork), and Castleward (county Down) shares, nothing was done. From the mining districts of the counties of Cork and Clare we have very good accounts. Of Shull Bay Mines, old Cosheen, we hear that, in accordance with the predictions of the captain, but contrary to the expectations of sundry inspectors, two out of the three south lodes, which were discovered in a cross-cut south, on a cross-course, and proved rich, have again been intersected in another cross-cut, 120 fms. west of the cross-course, promising an excellent mine, if worked with proper energy, which, however, seems to be wanting. At Ballycumisk, one of the old Audley Mines (county Cork), it is reported there is now a splendid course of ore in the 114 fm. level, clearly showing how unjustly, as well as injuriously, the county of Cork has been treated by our best geologists, but purely theoretical miners, who asserted that ore found in that district would not hold out in depth. But this is not the only serious error which our scientific men have made on questions affecting the mining interest of our country.

At the Redruth Ticketing, on Thursday, 3869 tons of ore were sold, realising 19,295 1/2 6d. The particulars of sale were:—Average standard 117 1/2; average produce, 6 1/2; average price per ton, 5 1/2; quantity of fine copper, 255 tons 18 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
Jan. 1.	3156	126 2 0	6 1/2	5 12 0	84 8 0
" 8.	2356	127 1 0	6 1/2	5 10 0	81 8 0
" 22.	5926	128 6 0	6 1/2	4 9 6	79 11 6
" 29.	3797	131 5 0	6 1/2	4 9 6	79 11 6
Feb. 5.	3869	137 0 0	6 1/2	5 0 0	75 8 0

Compared with last week's sale the decline has been in the standard 3 1/2, and in the price per ton of ore about 4s. 3d. Compared with the corresponding sale of last month the decline has been in the standard 9 1/2, and in the price per ton of ore about 12s.

At the Swansea Ticketing, on Tuesday, 1525 tons of ore were sold, realising 21,202 1/2 11s. 6d. The particulars of the sale were:—Average standard, 94 1/2 15s.; average produce, 17 1-16; average price per ton, 13 1/2 18s.; quantity of fine copper, 260 tons 4 cwt. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Ore cop.
Jan. 8.	2291	104 3 0	13 1/2	11 16 6	86 10 0
" 20.	1855	104 13 0	11 7 1/2	9 16 6	86 10 0
Feb. 3.	1525	94 15 0	17 1-16	13 18 0	81 10 0

Compared with the last sale, the decline has been in the standard 6 1/2, and in the price per ton of ore about 17. Compared with the corresponding sale of last month, the decline has been in the standard 6 1/2 10s., and in the price per ton of ore about 17 2s. 6d. Of the 1525 tons sold on Tuesday, 268 tons were British ores, which gave an average produce of 11 1/2, and sold at an average standard of 96 1/2 15s.—87 1/2 per ton of ore; the remaining 1257 tons were foreign ores, which gave an average produce of 18 3-16, and sold at an average standard of 94 1/2 15s. 6d.—14 1/2 15s. 6d. per ton of ore. On February 17 there will be offered for sale 1944 tons of ore, from Cobre, Ockip, Victor Emanuel, Great Northern, and other mines.

At the Great Wheal Fortune meeting, on Jan. 30, the accounts for the quarter showed a profit of 2258 1/2 8d. After deducting the Nov. labour cost and the quarter's bills, the actual balance in favour of the mine amounted to 1791 1/2 14s. 8d. A dividend of 1348 1/2 10s. (15s. per share) was declared, leaving 446 1/2 4s. 8d. to be carried forward to the credit of the next account. The report of the agents stated that there were 62 pitches being worked by 163 men, at tributes varying from 4s. to 14s. in 11; the number of men and boys employed upon the mine was 102, the total number of hands employed upon the mine being 591. The returns for the ensuing three months would be 110 tons of black tin, about 50 tons of which would be raised from the old mine. The ground run in the twelve months ending Nov. 1862, was 672 fms. 1 1/2 in. in average price, 67 3s. 6d. per fm. The instuff sampled, 155,704 sacks; average produce, 3 cwt. 1 lb. per 100 sacks. Tin sold, 253 tons 8 cwt. 24 lbs.; dressing cost, 7 1/2 4s. 6d. per ton. Ground removed in the twelve months ending Nov. 1862, was 1192 fms. 3 1/2 in.; average price, 4 1/2 6d. per fm. Tinstuff sampled, 247,169 sacks; average produce, 3 cwt. 1 lb. per 100 sacks. Tin sold, 444 tons 3 cwt. 3 qrs. 7 lbs.; dressing cost, 8 1/2 10s. 9d. per ton.

At the Craddock Moor Mine meeting, on Jan. 29, the accounts for Sept. and Oct. showed a profit of 647 1/2 13s. 6d. The assets exceeded the liabilities by 1233 1/2 11s. 6d. The agents' report stated that since the last meeting they had completed the sinking of Edmund's engine-shaft to the 110 fm. level, and the men were now employed driving south, to ascertain if there be any part of the Menadue lode in that direction, and to reach Vivian's south lode. They were making good progress in driving the 52 fm. level cross-cut towards the south part of Vivian's lode. The 62 east, upon Gilpin's lode, was worth 1 1/2 ton of ore per fm.; they were not yet got under where the lode was so productive as the 42. Since the last meeting the lode in the 48, east from Harris's shaft, had yielded fully 2 tons of rich copper ore per fm., but in the present end it was not so productive, now worth about 1 1/2 ton. The lode here had a very promising appearance, and seemed likely to yield large quantities of ore. They had commenced driving the 48 west, where the lode was worth about 1 1/2 ton of ore per fm. They proposed selling about 320 tons of copper ore for the next two months.

At Gonamena Mine meeting, on Jan. 29, the accounts made up to the end of October showed a credit balance of 178 1/2 13s. 2d. A call of 2s. 6d. per share was made. The agents' report stated that he was anxious to see deeper levels, knowing there were good shoots of ore gone down below the bottom level. Gilpin's lode had been opened on at the 90 upwards of 100 fathoms in length, and found in places very productive. Pitches had been worked in the back of this level at 4s. 6d. in 17. Taylor's had been a good lode, although not opened to the extent of Gilpin's lode; it would be seen from last report that the 90 west, on Sarah's lode, was within a short distance from where the lode would yield 4 tons of ore per fm. More than 46,000 lb. of ore had been sold from this mine, none of which came from below the 90. He believed this would be a good mine when once laid open, and hoped no time would be lost in so doing.

At East Grenville Mine meeting, yesterday (Mr. Brewer in the chair), the accounts showed a debit balance of 728 1/2. A call of 2s. 6d. per share was made. The indications for copper in several parts of the mine were very favourable.

At the Polihgy Moor Mine meeting, on Jan. 28 (Mr. Peter Clymo in the chair), the accounts for the four months ending with costs for Oct. showed a debit balance of 73 1/2 11s. 9d. A call of 3s. 6d. per share was made. The report of the committee stated that from the promising nature of the lode operated on they could not do better than immediately sink with all speed on the south shaft on the lode, and also sink the east shaft under the 12, on the north lode. The report of the agent stated that he thought they might be enabled to raise 100 lb. worth of tin per month towards meeting the current expenses.

At Merilyn Mine meeting, on Wednesday, the accounts showed a debit balance of 94 1/2 17s. 4d. A call of 1s. per share was made.

At Garreg Mine meeting, on Wednesday, the accounts showed a debit balance of 237 1/2 6s. 5d. A call of 3s. per share was made. The secretary was "instructed to dispose of 1000 of the forfeited shares by public auction, and 1000 by private contract, at a not less price than that realised at the auction."

At the Pedn-an-drea United Mines meeting, on Monday (Mr. Pilsford in the chair), an account of receipts and payments from Oct. to Jan. showed a balance in hand of 1125 1/2. The report of the agents (Messrs. W. Tregay, T. Delbridge, and J. Thomas) stated the improved price of tin obtained about the time of the last meeting—continuation of which they had then reason to expect—had since that time entirely disappeared, affecting the value of their sales to the extent of 160 lb. per month. The falling of the piston of their drawing-engine, and the leaky state of the boiler, had materially affected the regularity of their hauling. With their present prospects, they believed they would soon meet the cost with even the current price of tin, for, showing even now but a very small loss, while opening the tin ground, they expected to show much better results after the levels were extended a few fathoms, and the skip thrown to the 120—the present bottom of the mine would ensure great and profitable results, and they had no reason to doubt of its continuance, but had every reason to expect, as they got deeper into the granite, further improvement. The Chairman, having moved the adoption of the report and accounts, stated that, to place their affairs in a sound financial condition, it was considered necessary to make a small call. The Secretary believed that, if they made a call upon the present occasion, it would be the last that Pedn-an-drea required.

The accounts having been allowed and passed, a call of 1s. per share was made. A discussion ensued with regard to Sparrow, during which the Secretary (Mr. G. H. Cardozo) stated there was no doubt that the East Carn Brea engine took a great deal of the water caught in it. An engine, therefore, was necessary. The question would have to be decided whether Sparrow should be worked in conjunction with Pedn-an-drea, or separately. Mr. Hill enquired if some arrangement could not be come to with East Carn Brea? The Secretary said that was altogether impracticable. Mr. Jardine thought there could

be no question that Pedn-an-drea was looking very much better, seeing that the shares were being bought up by persons residing in the locality of the mine. Mr. Sharp was sorry to find that the 120 east had fallen off. The Secretary said that was accounted for, presuming that the tin was further north. In answer to a question, with reference to Sparrow, he stated that the condition upon which that sett was granted was that an engine should be erected; but the lord at the time, seeing the energetic manner with which Pedn-an-drea was being developed, did not compel the company to carry that stipulation into effect. Since, however, East Carn Brea had turned out so well, the lord required them to carry out that condition. Mr. Jardine remarked that Capt. Thomas Richards spoke of Sparrow in the highest terms; and suggested that a special meeting should be convened for the purpose of discussing the propriety of working Sparrow, in conjunction with Pedn-an-drea, or as a separate sett. It was eventually arranged that a special meeting should be convened for Feb. 23. The proceedings then terminated.

At the Wheal Sidney meeting, on Jan. 28, the report stated that "the quantity of tin which has been sold is nearly 13 tons; the first sale was of 8 1/2 tons, at 66 1/2, the second of about 4 1/2 tons, at 67 1/2 15s. The balance against the adventurers is about 700 lb., but considering that our returns will henceforward be more regular, and the cost of coal for the engine will almost cease as the spring advances, and the water-power is again used to command the water in the mine, looking also at the probability of a considerable advance in tin—there being now only about 400 tons on passage from the East against 1300 tons last year, and the price being much higher than in England, besides the possibility of an early cessation of the American blockade. We do not think it necessary to recommend a call, and hope at our next general meeting to show more satisfactory results." The mine had been inspected by Capt. Chas. Thomas, who is of opinion that at present with economical management he fears the mine will scarcely pay current expenses with present price of tin. He values the lode as worth 8 1/2, and 13 1/2, and in one place 2 1/2, and points out a great falling off in the bottom level, but states his opinion that there are indications in both ends offering prospects for vigorous explorations. In effect, Capt. Thomas confirms the reports of the agents.

At Michell Mine meeting, on Wednesday, the accounts showed a debit balance of 41 1/2 6s. 3d. A call of 1s. per share was made.

At Wendron Consols Mine meeting, on Jan. 22, the accounts showed a debit balance of 1153 1/2 11s. 11d. A call of 1 1/2 per share was made. Captains Taylor, Jenkin, and Johns reported that they "consider the mine looking better, and expect during the next quarter to increase the returns of tin. We have 22 pitches, at tributes varying from 4s. to 13s. 4d. in 17. We have sold during the quarter 53 tons 10 cwt. 2 qrs. 17 lbs. of black tin, amounting to 3449 1/2 2s. 1d. We have laid out at Bal-Dees more than 3000 lb., and do not anticipate any additional outlay there, whilst we rely on considerable returns there and in other parts which have recently improved." Employed on the mine: men, 209; boys, 79; girls, 59—total, 347.

At South Caradon Wheal Hooper meeting, on Tuesday, the accounts showed a debit balance of 275 1/2 10s. 10d. A call of 2s. per share was made.

At East Wheal Lovell meeting, on Monday, the accounts showed a credit balance of 30 1/2 6s. A number of shares being relinquished, it was resolved that they be accepted, and "that the pursuer be instructed to arrange with the parties on the assumption that the materials and effects are worth 1000 lb.; and that, in case the shareholders who have relinquished should desire a valuation, the pursuer then be instructed to proceed with such valuation in the usual way." Captain J. Burran reported that "since last meeting we have altered the bearing of the shaft by stopping it a little westward, which with the sinking 3 1/2 fms., have yielded about 400 lb. worth of returns, and if the lode continue as productive as it is at present, I may venture to repeat that our returns will be further increased, and of which I have little or no doubt."

At Hendre-Dda Slate and Slab Quarry Company meeting, on Monday (Sir William Milman in the chair), the capital account showed an unaltered capital amounting to 22,225 1/2. The cash account showed a balance at bankers and in hands of the manager at the quarries of 3396 1/2. The report of the directors and accounts were received and adopted. The retiring directors and auditors were re-elected. Details in another column.

LEEDS, FEB. 5.—During the past week there has not been much business in the Mining Market, but prices have been very firm. Wheal Providence is progressing rapidly. A sale of 40 tons of ore has just taken place, and the next is expected to be much more.—Edward Brook, Mining Broker, 5, Bank-street.

LEEDS, FEB. 5.—In mining shares there has been more activity manifested during the past week, and previous rates have been maintained.—JOHN GLEDHILL AND CO.

SILVER BANK MINING COMPANY.—A petition for winding-up this company by the Court of Chancery has been presented to the Master of the Rolls, by Mr. P. O'Neil, and Mr. W. J. Edwards, of 47, Mark-lane. The case will be heard on Feb. 14.

RISCA COAL AND IRON COMPANY.—The Master of the Rolls has announced his intention of making a further call, of 1000 lb. per share, on the contributors.

MOSELEY GREEN COAL AND COKE COMPANY (LIMITED).—A meeting for proof of debts in this company was held before Mr. Commissioner Gounburn, yesterday. Mr. Linklater appeared for the creditors, Messrs. Greville and Tucker as solicitors for the official liquidator, and Mr. Hutton, of Moorgate-street, accountant, attended to check the proofs. The meeting was adjourned till March 20.

The Court of Chancery has appointed Mr. Frederick Whinney official liquidator of the Rockhall Fishing Company (Limited).

COAL MARKET.—On Monday the fresh arrivals were 45 ships, the quantity for sale, however, was in excess of the demand, and business in house and steam coal was very dull, at a reduction of from 3d. to 6d. per ton. In manufacturers' no alteration. Best house coal, 16s. 6d. to 17s.; seconds, 14s. 6d. to 15s. 6d.; Hartley's, 13s. 6d. to 14s. 9d.; manufacturers', 12s. 6d. to 14s. 6d.—On Wednesday there were 54 arrivals. There was an increased demand for all descriptions of coal, at fully last day's prices.—On Friday there were 73 arrivals. The market was very quiet, and no quotable alteration in prices. Hetton Wallsend, 17s.; South Hetton Wallsend, 17s.; Lambton Wallsend, 16s.; Tees Wallsend, 16s. 3d.; Eden Main, 15s.; Hartley's, 15s.; West Hartley, 15s.; Tanfield Moor, 13s. 6d.; Bute's Tanfield Moor, 13s. 6d.: 58 cargoes un sold; 250 ships at sea.

LIVERPOOL COAL TRADE.—From the Coal Circular of Messrs. Platt we learn that the quantity of Cannel, coal, coke, and patent fuel shipped at Liverpool in January was 41,005 tons, and in the corresponding month of last year 39,780 tons, showing an increase last month of 1225 tons. The exports coastwise during January were 5415 tons; same month last year, 5175 tons—increase last month, 240 tons.

BRISTOL COAL TRADE.—The overseas exports at this port during Jan. amounted to 748 tons, as against 730 tons in Dec. The shipments were as follows:—Demerara, 300 tons; Barbadoes, 150 tons; Trinidad, 278 tons; Bordeaux, 20 tons; total, 748 tons. In the corresponding month last year 1036 tons of coals were exported from Bristol, so that the foregoing returns show a decrease in the shipments of 288 tons.

CONTRACTS FOR COAL.—The Admiralty require the supply of 500 tons of South Wales Coal, for Nassau, New Providence.—The Admiralty also require 3000 tons of South Wales Coal, for the Naval Yard at Jamaica.

THE WALKER COLLIERY EXPLOSION.—In a Supplement to this day's Journal, we give a very interesting series of remarks upon the Walker Colliery Explosion, and upon the inquest which was held upon the bodies of those who lost their lives by it. The remarks are the more important, as showing the difficulty which there is of convincing those engaged in managing collieries that systems of working proved to be dangerous should not be continued in use, and also the apathy of the colliers themselves. The Supplement also contains—Lecture on Mineral Veins, by James Napier, F.G.S.; the Economy of Cornish Pumping-Engines; Chinese Blacksmiths; New Style of Canal Boat; Petroleum; Maryland Coal Trade; the Manufacture of Cobalt and Nickel, by Lewis Thompson, M.R.C.S.; William James, the original projector of the Railway System No. 2; the Twelfth Annual Statistics of the Mining Interest, by W. H. Cuell, &c., &c.

Now Ready, price 30s., with TITLE-PAGE and INDEX, the THIRTY-SECOND VOLUME of the MINING JOURNAL, for the year 1862.

THE TIN STANDARD.—There is no alteration in the tin standard, which remains at, for refined, 108 1/2 to 107 1/2; common, 102 1/2 to 103 1/2, according to the drop on Nov. 27; nor does there appear much probability of a rise to any extent while stock continues to accumulate. The market has been rather weakened during the last few days. Considerable sales of English tin were made in the early part of last week, and had not an advance of 1 per cent. in the rate of interest taken place, it was thought an advance in price might have been announced. In foreign tin an extensive business has been reported daily. For Straits, 120s. cash, and 120s. prompt, have been freely paid, principally for export, and the market appears to be cleared of fine parcels. Banca in Holland supports the advance, and the stock is held for higher prices.—West Briton.

RAMSAY LEAD MINING COMPANY.—Mr. Robert Crowe, of Enfield and Lowestoft, and Mr. Robert Basketh, late Her Majesty's Consul at Rio, have joined the directors of this company.

RAILWAY CARS.—The amount falling due in February is 8732 1/2—making 1,303,775 1/2 called up during the present year.

The newly-erected shears in the Southampton Dock were tested a day or two since. They are made of iron, are worked by steam, and capable of lifting 100 tons. They are the largest shears in England, and have cost 1000 lb.

LEAD ORES.

Mines.	Tons.	Price per ton.	Purchasers.
Carminthen United	30	£14 3 0	Sims, Williams, & Co.
Trelawny	60	27 0 0	Stock & Co.
East Longins	50	13 3 6	Panther Co.
Gwynstwith	60	15 15 6	Tredy's Trustees.
Goginan	20	18 6 0	Sims, Williams, & Co.
ditto	20	18 6 0	ditto
ditto	5	16 6 6	Newton, Keates, & Co.
Holmehush	20	15 7 6	Walker, Parker, & Co.
ditto	32	2 0 0	Walker's Trustees.

BLACK TIN.

Mines.	Tons c. q. lbs.	Price per ton.	Amount.	Purchasers.
South Carn Brea	5 3 2 4	£20 12 6	£113 16 10	Blanco.
ditto	5 0 0 19	60 12 6	303 12 6	Chyndour.
Gt. Wh. Bay	21 2 0 4	—	1230 6 4	—

Sold on the 26th January.

Sold by the Dolcoath Mine, during the year 1862.

Tons c. q. lbs.	Av. price.	Amount.
Tin	205 17 3 2	£26 9 3
Copper	452 12 3 0	£4 3 0
Arsenic	129 10 0 0	1 0 0

Of the above quantity of tin, 213 tons 11 cwt. 1 qr. 19 lbs. were purchased by Messrs. Williams, Harvey, and Co., and 89 tons 6 cwt. 1 qr. 11 lbs. by the Redruth Smelting Company. Dividends paid in 1862, 16,110 lb., or 45 1/2 p. per 1-358th share.

COPPER ORES.

Mines.	Tons.	Price per ton.	Purchasers.
Lot 1 (ex John Peile)	70	£17 0	St. Helen's Co.
2 (ditto)	70	17 13 6	Newton, Keates, & Co.
3 (ditto)	70	17 17 0	St. Helen's Co.
4 (ditto)	70	17 14 0	Sims, Williams, & Co.
5 (ditto)	67	19 15 0	ditto
6 (ditto)	67	19 15 0	ditto
7 (ditto)	66	19 15 0	ditto

COPPER ORES.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Cobre	105	13 1/2	£10 15 0	Chill	52	24 1/2	£20 4 6
ditto	103	14	10 18 6	ditto	51	24 1/2	20 5 0
ditto	88	14 1/2	10 16 0	ditto	50	24 1/2	20 4 6
ditto	100	14 1/2	11 1 0	Knockmahon	66	13 1/2	11 12 6
ditto	78	14 1/2	10 18 6	ditto	62	13 1/2	10 18 6
ditto	48	24	19 2 6	Liverpl. Slag	111	34	1 15 0
ditto	10	25 1/2	19 2 0	ditto	39	26 1/2	20 7 0
ditto	10	55	44 12 0	ditto	10	28 1/2	21 10 0
ditto	8	58 1/2	45 8 0	ditto	1	5	3 17 0
ditto	16	31 1/2	23 17 6	Eng. & Can.	17	27	21 7 6
ditto	99	13 1/2	10 12 0	ditto	12	41 1/2	34 15 6
ditto	98	13 1/2	9 19 6	British Reg.	29	33	20 7 6
ditto	50	13 1/2	10 0 0	New Cornwall	19	24 1/2	19 16 0
ditto	29	13	9 15 0	ditto	3	10 1/2	8 8 0
ditto	65	30 1/2	24 4 0	Mount Rose	1	37	30 4 0
Chill	53	24 1/2	20 6 0				

TOTAL PRODUCE.

Cobre	947	£1258 19 6	English and Can.	29	£780 13 6
Chill	206	411 12 0	British Regulus	29	764 17 6
Knockmahon	123	1418 12 0	New Cornwall	22	401 8 0
Liverpool Slag	111	189 5 0	Mount Rose	1	30 4 0
Lisbon	62	894 0 0			

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Copper Miners' Company	29	£282 15 0
Freeman and Co.	22 1/2	258 2 6
P. Grenfell and Sons	303	3276 12 0
Sims, Williams, and Co.	84	2152 4 0
Vivian and Sons	138	1796 8 0
Williams, Foster, and Co.	309 1/2	4390 6 0
Mason and Elkington	50	1011 5 0
Bankart and Sons	88	1545 11 0
Sweetland, Tuttle, and Co.	259	2704 6 0
Seath Copper Company	72	1458 2 0
Total	1525	£21,202 11 6

Copper Ores for sale at Swansea, Feb. 17.—Cobre 65, 54, 53, 51, 47, 107, 104, 82, 70, 49, 52, 19, 11—Ockip 47, 45, 44, 47, 42, 45, 29—Wheal Maria 27, 9, 1—Chill 57, 56, 55, 54—Knockmahon 115, 99—Victor Emanuel 55, 18, 4, 6, 2—Gonamena 15—Crookhaven 95—Great Northern Mining Company of South Australia 24, 8, 17, 4, 33—African 44, 19, 11, 11, 2, 1—London Slag 24—London 6, 1—Precipitate 4.—Total, 1944 tons.

The directors of this company call the attention of the public to the extracts herewith from letters published by distinguished parties, which, with the reports, they consider conclusive evidence as to the real value of the property they have secured, and feel satisfied that so good an opportunity for legitimate investment seldom occurs. A considerable portion of the capital has been subscribed by gentlemen in the locality of the mine; and should the shares hereafter applied for not be allotted, the deposits will be returned in full. The lease for 21 years and samples of ore can be seen at the offices, 28, Cornhill—entrance in Change-alley.

The reason why this property has not been earlier developed arises from the fact that until the death of the brother of the present owner a lease could not be obtained for mining on the estate.

SOUTH PARYS COPPER MINING COMPANY (LIMITED), ANGLESEY, NORTH WALES.

Capital, £20,000, in 10,000 shares of £2 each.
5s. to be paid on application, and 15s. on allotment.

It is believed that no further call will be made; but, should such be found advisable, it will not exceed 5s. per share, at intervals of not less than three months, or as may be determined by the shareholders at the first general meeting.

Registered under the Companies Act, 1862, by which the liability of each shareholder is limited to the amount of his subscription.

DIRECTORS.

E. COBHAM BREWER, Esq., LL.D., 14, Bernard-street, Russell-square.

W. R. CRITCHLEY, Esq., Manchester.

JOHN HITCHEN, Esq., Easton-Great, Chester.

JOHN RHIMMIN, Esq., Liverpool.

H. T. SCOTT, Esq., Alexandria House, S.E.

HENRY GEORGE SMITH, Esq., manufacturer, Birmingham.

SOLICITORS.

G. W. C. DEAN, 27, New Broad-street, London, and Messrs. Boydell and Powell, Chester.
BANKERS.—The Bank of London, Threadneedle-street, London; and Messrs. Williams and Co., Chester and Carnarvon.

RESIDENT MANAGER AT THE MINE.—Capt. C. B. Dyer, Parys Lodge, Amlwch, Anglesey, late manager of the Great Parys Mountain Mine.

PROVISIONAL SECRETARY.—F. W. HOWES, Esq.

OFFICES.—28, CORNHILL, LONDON.

The object of this company is to work a portion of the Great Parys Mountain, shown on the Ordnance Map as Plas Newydd, in the island of Anglesey, containing 116 acres, adjoining and situated south of the Parys and Mona Mines, which have for many years regulated the price of copper, yielding an average of about 70,000 tons per annum, giving for some years past an average profit of upwards of £20,000 per year.

The directors call attention to the fact that several trial pits have been sunk at the base of the mountain, from which copper ore has been taken, and its value proved from an analysis by Professor Muspratt, which gives them every hope that at no distant period they will cut the main lodes. Should they be met with, in accordance with the unanimous opinion of the three experienced mining engineers who have just visited and reported on the property, there can be no doubt of its proving a first-class investment.

The directors have made arrangements to secure the lease of this valuable property for £5500; the same to be paid £2500 in cash, and £3000 in paid-up shares of the company.

The directors present, with the prospectus, extracts from some of the articles which have recently appeared in the *Mining Journal*, of Aug. 24 and Sept. 13 and 20, as to the extraordinary wealth of the island of Anglesey; and, as they more especially refer to the very mountain in which this mine is situated (the boundary only dividing it from the Great Parys and Mona Mines, which for years regulated the price of copper), they desire to call attention to them, and invite the strictest enquiry as to the property, feeling certain that the result will be satisfactory; and the small sum they have to pay for it presents a striking contrast to the amount given for smaller settlements in less favoured districts—for all historians who have touched on the mineral deposits in the island concur in the fact that the northern portion of it is very rich, not in copper only, but also lead and iron, and which the wealth derived from the old and the opening of new mines fully proves.

As the success or failure in mining much depends on the person employed to develop the same, the directors have been very careful in the selection of a captain, and have the satisfaction of stating that they have secured the services of Mr. C. B. Dyer, who was for many years manager of the Great Parys Mine adjoining, until the termination of the lease, who is, consequently, thoroughly acquainted with the stratification of the district, and whose testimonials are of the highest character. They pledge themselves that the property shall be worked with energy and economy, which the advantage of having some of the directors residing in the neighbourhood, who will frequently visit the works, will the better enable them to accomplish.

The directors, being anxious to have the most correct reports on the property, instructed Capt. Dyer and Trevethan, and Mr. Cottingham, whose reports they publish, to view the property together.

Applications for shares to be made to the bankers or secretary of the company.
The lease and samples of the ore to be seen at the offices of the company, where all other information may be obtained.

REPORTS.

Mold, Oct. 13, 1862.—This mineral property situated on the south-west slope of the Great Parys Mountain, on the right of the turnpike-road, from Bangor via Llanerch-y-medd to Amlwch. It adjoins the celebrated Parys and Mona Mines, and is distant two miles from the town of Amlwch, in this island of Anglesey. It is of considerable extent, and I believe it to be valuable for mineral for reasons following:—1. At a distance of seven miles west and three miles east of Parys Mountain, fine lodes are met with, well defined, and carrying copper to surface, associated with galena and iron pyrites. Similar lodes have also been discovered, and are now being opened, in the Dinorben ground, four miles north-west from Parys Mountain. The whole country is intersected with most powerful and kindly clay cross-courses, and is highly mineralized throughout. 2. A good course of copper ore has been opened and worked about 400 yards west of Parys Mine, and yielded well. This is plainly traceable through the South Parys set; and coarser or trial pits have been put down in the west end of the set, from which lode stones of copper were taken, and the stuff now lying at surface shows indications for copper. Now, taking into consideration the proximity of South Parys to the Great Parys Mountain Mine, the produce of which ruled the copper market for some years, and which is now found strong in depth, (say) 240 yards, I at once recognise the great value of this property. It is, in my opinion, well worth a most vigorous and searching trial all through; and I believe the best course to pursue will be to bring in an open cutting from the lowest possible part of the ground till sufficient cover is attained; thence to carry in an adit, so as to cross-cut the set through. This trial will not be expensive (say) from £1000 to £1500; but, as I anticipate a discovery by means of it of one or more lodes, on which it will be ultimately necessary to sink and erect powerful machinery, I should recommend a capital of not less than £20,000 to be available, and, with thorough practical skill and energy, there is little doubt the result will be most satisfactory.

THOS. L. COTTINGHAM, M.E.

Holywell, Oct. 13, 1862.—Agreeable with your request, I have carefully surveyed this property, in company with Mr. Cottingham and Capt. Dyer, many years agent to the Parys Mine, and who paid the shareholders large profits. I may state that my opinion is that a small outlay would make it a good mine; I cannot for myself see how it can be better, as the South Parys and the Parys Mines are close adjoining each other. The Parys Mine boundary comes up to the top of the hill, and it is very clear that they have returned many and many a thousand tons of copper within a short distance of the boundary between you and them. The Parys Mine lodes in many places run (taking all the branches into consideration, the whole of which being rich for copper) 100 yards wide from the top of the hill northwards. A few coarser pits have been made, and some lumps of copper ore dug out from them of the same quality as those found in the Parys Mine; but you have not gone deep enough to find the lodes. From the appearance of the flooken cut up by costeaning, traces of copper were visible; and I firmly believe that depth only is required to find you a mine that you never live to see worked out, and that, as I have been stating, for a very small outlay. I would recommend, for the further prosecution of this mine, an adit level being taken up at the southern part of the set, and continued northwards, so as to be able to cross all the east and west lodes, and on the most promising sink a shaft, which manner could be cheaply carried out, and the whole of the lodes proved. The enormous quantities of copper, for ages past, that have been raised from the Parys and Mona Mines, and being so close to yours, should, in my opinion, be a sufficient inducement to recommend any party inclined to speculate to lay out their money in the South Parys Mine, the advantages for shipping, &c., being very great, the port only a distance of two miles from the mine. On the whole, I can only remark that such chances have been rarely met with, and I believe with but little doubt of great success.

JOHN TREVETHAN.

18, Bucklebury, London, Dec. 29, 1862.—I now beg to hand you my report on the South Parys mine, which, I am glad to say, has been very successful. Having at your request been there to inspect the same, I am prepared to say there are three copper lodes (east and west) and one coarser lode (north and south), which intersect this property, and which may be proved at a small outlay, and there is little doubt the result will be most satisfactory. I will, if you desire it, send a more full report, with tracings, &c.

CHAS. B. BENNETT, C. and M.E.

Parys Lodge, Amlwch, Oct. 13, 1862.—This mine is to the south, and adjoins Parys Mine. About the centre of the land a shaft and some pits have been sunk, and some fine stones or lumps of rich ore raised, containing copper, lead, zinc, silver, and a trace of gold. I am of opinion a lode will be found running east and west through the grant. This can be proved by a small outlay by cross-cutting, and also the deposit from whence these large stones or lumps of rich ore came from found in the clay in the lower land. I would recommend this cross-cut (partly open east and partly a level) from the low land north towards the Parys Mine southern boundary; and I have no doubt a good lode will be found, and that it will prove a valuable property.

C. B. DYER.

Aberystwith, South Wales, Oct. 13, 1862.—I have much pleasure in bearing testimony of the high character and cheering appearance of the South Parys Mine. My opinion of it is most favourable; and I think it very probable that, in a short time, it will become an important property.

S. TREVETHAN, Senr.

Parys Lodge, Amlwch, Jan. 6, 1863.—In reply to yours of the 23d ult., I beg to inform you that the Mona and Parys Mines have sold from 60,000 to 80,000 tons of ore per annum. The profits of Parys Mines alone, for some years, during the 24 years I had the management, was from £18,000 to £20,000, and one year it exceeded £25,000. I may observe that my connection with the mine ceased when the lease of the company expired, in 1859; it is now being worked by other parties, who employ about 400 hands.

C. B. DYER.

TREGURTHA DOWNS AND OWEN VEAN CONSOLS MINING COMPANY (LIMITED).

ST. HILARY AND FERRANTHNOE, CORNWALL.

Capital, £40,000, in 16,000 shares, of £2 10s. each.

Deposit, 5s. per share on application, and 15s. on allotment.

BANKERS.

Union Bank of London, Princes-street.

Messrs. Vivian, Grylls, Kendall, and Co. Helston.

Messrs. Bolitho, Sons, and Co., Penzance.

SOLICITORS.

H. Grylls Hill, Esq., 17, Barge-yard Chambers, London.

Messrs. Grylls, Hill, and Hill, Helston.

LONDON MANAGERS.—Messrs. Dunsford and Ranken, 9, Broad-street-buildings.

These mines are in a district in Cornwall, which has yielded copper and tin worth from £8,000,000 to £10,000,000 sterling.

The reports are unusually numerous and favourable, and by miners of the highest reputation. Detailed prospectuses, with maps, plans, reports, forms of application, and all information may be obtained of Messrs. Dunsford and Ranken, No. 9, Broad-street-buildings, and will be forwarded by post on application.

THE PROGRESS OF MINING IN 1862, BEING THE NINETEENTH ANNUAL REVIEW.

BY J. Y. WATSON, F.G.S., Author of the *Compendium of British Mining* (published in 1843) *Gleanings among Mines and Miners*, &c.

The EIGHTEENTH ANNUAL REVIEW OF MINING PROGRESS appeared in the *MINING JOURNAL* of December 28, 1861, and January 4, 1862.

A FEW COPIES OF THE REVIEW OF 1862, containing Statistics of the Metal Trade, the Dividends and Percentage Paid by British and Foreign Mining Companies, and the State and Prospects of upwards of 200 Mines. Also A FEW COPIES OF THE REVIEW OF 1862, 1863, and 1864, MAY BE HAD ON APPLICATION at Messrs. WATSON and CUELL'S Mining offices, 1, St. Michael's-alley, Cornhill, London.

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TO THE EDITOR OF THE MINING JOURNAL.

Sir,—My attention has been called to an advertisement in your Journal, headed "A Cautious Man," and referring to a "Mr. Halse, inviting speculators in mines to employ him as their broker."

I being the only person of that name who is a member of the Stock Exchange, and a sworn broker, the confusion of identity arising from the similarity of surname has caused considerable trouble to my friends, and annoyance to myself.

I may observe that it is contrary to the rules of the Stock Exchange for its members to advertise their business, and it is contrary to my custom to proffer advice for the guidance of speculators.

May I, therefore, as an act of justice, and as a favour, be allowed to state in your columns that I am not in any way connected with that advertisement, or its author.

I am, Sir, your obedient servant, JOHN HALSE.

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Notices to Correspondents.

* * * Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

JOINT-STOCK COMPANY LAW.—"A. M." (Sheffield).—The cost-book company in question should be registered, and until registration is under the following severe disabilities:—1.—It cannot sue in any court of law or equity, but it may be sued.

2.—No dividend can be paid to its shareholders.

3.—Each director or manager incurs a daily penalty not exceeding 5l. for working the mine without registration.—T. T.

COMPANIES' LAW.—In the event of a company being registered under the Companies Act, 1862, stating in its prospectus that the preliminary and all other expenses, up to the allotment of shares, is guaranteed not to exceed, say, 3000l., would the applicants for shares be liable (in the event of the number of shares applied for being too small to justify the directors in going on with the company) to contribute their proportion of the said 3000l.?

It seems to me that unless the shares be actually allotted, no claim whatever can be made upon the applicants for shares. But, in reply, I am asked—Is not the money expended by the directors, as the representatives of the applicants for shares, who, from the moment their application is received, are shareholders?

What, Mr. Editor, is your opinion on this point? I think that unless the shares be allotted the promoters alone are liable for expenses, and that unless the directors identify themselves with the promoters, they escape liability as much as the applicants for shares. I think, moreover, that if a company is advertised with a capital of, say, 100,000l., and there is no special power in the prospectus authorizing the directors to allot, although a less amount be applied for (an authority which no capitalist should contest), the applicants for shares, or any of them, could compel, in a court of law, the return of their deposit, if the directors allot less than 100,000l. worth of shares. The justice of this is obvious. A man may believe that a project would prove remunerative, if developed with a capital of 100,000l., yet may feel confident that with only 50,000l., at command, failure must result. The allotment of shares, when less than the proposed number is allotted, so changes the applicants' position, that I think he must have a legal remedy.—APPLICANT.

ASSURANCE.—I should feel obliged to any gentleman who could inform me of an assurance company constituted upon the mutual system, and whose profits are divided amongst the assured during life, instead of (as is usually the case) being added to the policy.—AN INTERESTING ASSURER.—Query, Would an insurer under these circumstances be held as a contributory in the event of insolvency?

DEVON UNITED.—The company formed for working this mine was wound-up some years since, and the affairs placed in the hands of a solicitor of Truro. I have repeatedly applied for information, but can obtain nothing satisfactory. Will some one connected with the company by communicating any particulars?—H. HARRIS, 22, Gloucester-street.

GREAT NORTHERN COPPER MINING COMPANY OF SOUTH AUSTRALIA.—The report of the committee of investigation was only read at the meeting, and had not been previously delivered to, or even seen by, the directors, which was considered so manifestly unjust, that an adjournment for one month was determined upon, to enable an answer to be placed before the shareholders, for consideration concurrently with the report. It is, therefore, at present, an *ex parte* document, and, consequently, we withhold its publication. Our correspondent may rest assured there is nothing in it at all detrimental to the interests of the shareholders.

NORTH DOWNS.—I should like to ask Capt. Pryor why he (or his agent) does not send a report from the mine often, or especially when any improvement takes place in the prospects of the concern? For some days past I, with other shareholders, had noticed an improvement in the price of these shares, and on replying to the offices of the company for information, the reply is—"We have nothing from the mine; several have been here for inspecting orders, and that is all we know."

With this information, Sir, we put on our hats and walk. Now, Sir, I ask—Is this fair to the outside shareholders? as, from such treatment, we must, of course, conclude there is something behind the scenes, and which all the adventures have a right to know of. If a bona fide discovery has been made (which, gracious knows, we have waited long for), let it come above board, and let not the management treat us in such an underhand manner.—V. R.

GONAMENA.—There are great hopes, I believe, of this mine becoming a rich one. A small call of 2s. 6d. per share I find has been made, but, as a shareholder, I would prefer calls being made less frequently, and, when necessary, much larger in amount, properly to prove such a property—as I understand from the best information that the general character and nature of this mine is most attractive for productiveness. The present selling price of this mine seems to be lower than any other of its progressive class. East Caradon, its neighbour, seems mostly to monopolize the attention of the market; and I much wonder that mines of a sound and hopeful caste do not command greater attention than they sometimes appear to do.—A SHAREHOLDER.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, FEBRUARY 7, 1863.

be led into a new enquiry, and are thus deterred from carrying on the experiments necessary to practically and beneficially develop their new ideas. Perfected inventions also of great value, which, if publicly made known, would give employment to a great number of hands, are notoriously kept secret, and withheld from public use, owing to the expense of taking out patents; such inventions are all doubly lost, since, if known to the public, they would become the subject of researches which might lead to other very important and beneficial results. It appears that after defraying all expenses from Oct., 1852, to Dec., 1861, there remained a balance of 269,837 l., of which sum, however, 138,815 l. was paid as revenue fees into the governmental taxation account, leaving still unappropriated a surplus of 131,022 l. But why a sum of 138,815 l., levied from inventors in the obtaining of their patents for new inventions, should have been paid into the governmental taxation account would seem to require explanation, there being no principle of equity, or even of sound public policy, on which so objectionable a tax can be defended. Whilst the annual receipts from inventors now exceed 100,000 l., the actual expenses of the Government Patent Office fall below 47,000 l. per annum, whence it is obvious that a great reduction in the cost of patents can be made without injury, even to existing interests. The committee remarks, that "practical and scientific men, conversant with the state of manufactures abroad, are generally agreed that it is only by dint of great exertion, under the most favourable circumstances, that the supremacy of this country in the manufacturing and chemical arts can be maintained. The comparative cheapness of food abroad, the lightness of taxation, and the liberal encouragement afforded to science and its cultivators by foreign Governments, all materially contribute to counterbalance the natural advantages we possess; but the chief causes which check invention in this country, impede the progress of the industrial arts, and give the vantage to our foreign competitors, are the high cost of obtaining patents for inventions, and the very doubtful protection which our laws extend to them when obtained, and we would urge upon our Government the paramount necessity which now exists for a greater and more liberal encouragement to invention than has hitherto been practised."

They consider that from the experience obtained by the operation of the new Patent Law during the last 10 years, it is manifest that the present charges for patents are very much too high, and consider that the total expense attending the obtaining Letters Patent should not exceed 25 l. That this sum should be divided into five sums, of 50s. each, and a sum of 12 l. 10s.—the five sums of 50s. to be payable in lieu of the present five l. payments, and the sum of 12 l. 10s. to be payable at the end of the fifth year, or in such other manner as the Commissioners of Patents may deem advisable; but the committee recommend that the first payment should be made as small as possible. They propose that as soon as the time at which the sums should be paid, and the final specification deposited, has arrived, the patentee, if he has not complied with either of these formalities, shall, within 24 hours, be served by one of the clerks of the Patent Office with a notice in writing, or forwarded through the Post Office at the address mentioned by the patentee in his petition or declaration, stating that the time for the accomplishment of the formality in question has elapsed, and that, if within 28 days from the date of the said notice in writing, he has omitted or otherwise failed to comply with the formality in question, his application shall be null and void, or his patent, if he has one, cancelled; whereupon, if within the 28 days the patentee, or any person acting for him, fulfil the stipulations of the Act, and pay to the said clerk an extra fee of 20s., it shall be lawful for the clerk of patents to comply with and fulfil the formalities as if the application had been made at the proper time.

Legal procedure generally as regards patent right, and particularly as regards infringements of patents—the question of scientific evidence, and the desirability of establishing a patent law tribunal, or court, for the trial of patent causes, is still under consideration, but the committee is already in a position to propose that in clause 35 of the Patent Law Amendment Act of 1852, after the words "the assignment of any letters patent, or of any share or interest therein, any license under letters patent," the following words be inserted, "provided the instrument bears under the signature of the patentee the words to be duly registered." That the following words be added at the end of clause 35 of the Patent Law Amendment Act, 1852, "provided always, that the parties to any assignment or license shall be estopped from impeaching or impugning the validity of such patent so assigned or licensed." And that when any objection to the validity of any patent which is, or has been, before a court of law can be removed by the entry of a disclaimer or memorandum of alteration, such court may order the entry of a disclaimer or memorandum of alteration.

We have abstracted the report at this length from the interest naturally attaching to the subject, and from the influence which any document emanating from an institute presided over by so competent a council must necessarily possess. In conclusion, we may refer to a correspondent's communication, in another column, which disagrees with the report upon many important points; we thus enable our readers to judge for themselves.

PATENT LAW COMMISSION.—On Tuesday and Wednesday last the sittings of the Commission for enquiring into the working of the Patent Law were resumed. The Commissioners present were Lord Stanley, Lord Overstone, Sir W. Erle, Sir W. Page Wood, H. Waddington, Esq., W. R. Grove, Esq., and the secretary, Edward Lloyd, Esq. It is proposed to hold weekly meetings of the Commission during the present session.

MANUFACTURE OF HEMP AND WIRE-ROPE.—A very interesting paper on this subject was read before the Institution of Mechanical Engineers, by Mr. Charles Shelley, of London, in which he carefully traced the entire process of manufacture, from the heckling of the hemp to the finishing of the rope. Mr. Shelley tells us that the strength of hemp-rope varies considerably, and depends principally upon the quality of hemp from which it is made, the number of yarns composing the strands, and the manner in which the ropes are laid. The average strength of each yarn in hawser-laid ropes is found to be greatest with the smaller sizes of ropes. Shroud-laid rope, made with four strands, is about one-fifth weaker than hawser-laid rope with three strands, on account of the additional twist, or "hard," which is given to the shroud-laid; and cable-laid rope is about one-third weaker than hawser-laid rope. The history of wire-rope making is then given; its introduction, 39 years ago, for the supporting cables of a suspension-bridge at Geneva, to the present time, the very excellent machine of Mr. Archibald Smith being, of course, referred to as the most perfect yet devised. In the discussion which followed the reading of the paper Mr. P. Haggie stated that a wire-rope 1 1/10th inch in diameter was about equal in strength to a hemp-rope 2 1/2 in. in diameter; the weight of hemp rope was about 1 1/2 times that of wire-rope of the same total strength. A hemp-rope 3 1/2 inches girth would not bear more than 3 1/2 or 4 tons; but in comparing hemp and wire-ropes of the same strength, he believed that if the same attention were bestowed upon a hemp-rope as upon a wire-rope, the hemp-rope would be found more economic in durability as well as in first cost (when used for pit purposes), provided the depth of the pit was not extreme. Beyond a certain limit, indeed, a hemp-rope used for winding in a pit would kill itself—that is, the great weight of the rope itself hanging down the pit, and the consequent continued stretching every time it was lowered, would eventually cause it to become almost rotten, and it would then give way.

UTILISATION OF THE REFUSE OF SLATE WORKS.—Mr. R. Hicks, of Kensington-park-terrace, has patented some improvements in the manufacture or preparation of paints or pigments and colours. The invention has for its object the useful employment of the debris or debritus obtained in slate quarries or slate works, in combination with anyone of the known carbons or charcoals, such as lamp black, ivory black, and such like matters, or of any of the substances containing sufficient carbon. These ingredients, or schists, or schistose substances, with the addition sometimes of oxide of iron or hematite iron ore, are intimately mixed together and subjected to the action of heat, whereby their chemical constitution becomes modified, so that, when subsequently pulverised, they may be advantageously employed as a paint, pigment, or colour. When using slate iron may be added, but when using slate or any of the various clays or schists that do not contain sufficient oxide of iron in themselves, the slate, clay-slate, schist, or schistose substances are mixed in a pulverised state with the carbonaceous materials, and 5 to 10 per cent. of pulverised hematite, or other iron ore, is added thereto; the quantity of iron to be added to the slate or schistose substances employed varying, of course, with the ferruginous quality of the schistose substances. The whole of the ingredients are intimately incorporated together, and then submitted to the action of heat, in the manner hereafter described. In carrying out this invention, when using slate, the slate is reduced to a fine powder, and when using the carbonaceous matters, and with the proper percentage of iron ore when required, and also reduced to a fine powder. These ingredients, when thoroughly incorporated, are put into a covered retort or crucible, from which the atmosphere is excluded, leaving, however, a small aperture in the upper part of the retort or crucible for the escape of the vapours or gases that may be given off. The time required to heat the mixture must depend upon the quantity operated upon, the size of the retort, and the energy of the fire. The object to be obtained is to cause the carbon to set upon, and partially decalcify, the oxide of iron, and thereby reduce the ingredients to a black mass. When the retort or crucible is removed from the fire, and the contents

have become cold, the cover may be removed, and the calcined mixture may be pulverised, and black paint will be thereby produced. It should be observed that the colour of the mixture would be injured if it were removed from the retort or crucible while hot. The process above explained is that adopted or employed for making black paint. When manufacturing lighter colours, the slate, clay-slate, schist, or schistose substances, refined to powder, are put into an open crucible, which is placed in a furnace and kept therein until the carbon contained in these substances is burned away, and the iron therein is peroxidised. The colour produced is a fawn or salmon colour, which may be varied in shade by an admixture of different colouring materials, such as ochres of different colours, hematite iron, and other suitable substances. For some purposes the slate is pulverised, and, after being reduced to an impalpable powder, is mixed with oil and water. This mixture makes a grey paint, or a delicate grey colour. In other instances, the pulverised slate is mixed with different coloured ochres or other matters suitable for producing a variety of tints; oil or water being afterwards used, as before mentioned, in manufacturing the paint or colours. The black powder produced by the process already described may be employed as the body colour used in the manufacture of black lead, for which purpose it is mixed with plumbago. The patentee claims, "the mode or modes herein set forth of preparing slate, clay-slate, schist, or schistose substances, for the manufacture of paints, pigments, or colours."

UTILISATION OF FURNACE SLAG.—Mr. A. Warner, of Threadneedle-street, has patented some improvements in the manufacture of pigments or paints from certain refuse materials. The invention has for its object the application of the refuse or slag obtained from puddling and reheating or other furnaces employed in the manufacture of malleable iron to the manufacture of pigments or paints. For this purpose the refuse or slag is reduced to a fine powder by any of the well-known mechanical operations for grinding or pulverising similar materials or other hard substances. The ground or pulverised materials are then to be mixed and otherwise treated, and combined with oil, or other materials, and used as pigments or paints for various purposes, as is well understood in the manufacture of pigments or paints from other oxides of iron or other metals. In carrying out this invention the slag or cinder should be reduced to a fine or impalpable powder in a grinding apparatus, such as is employed for grinding flints for pottery purposes, the materials being ground in water. After being sufficiently ground the materials are run off into a tank and allowed to subside, and then the water is run off from the surface, and the wet slurry mass is spread upon heated flues, or the material may be dried by any other convenient means. The pigment or substance thus prepared must then be taken and made up into paint by mixing with water and oil, and may be used in combination with colours and with dryers, according to the purpose for which it is required.

FOREIGN MINING AND METALLURGY.

Affairs do not present many features of importance in Belgium, except for rails. To the contracts mentioned recently as having been concluded during the last few weeks must be added one obtained by the Cockerill Company for 2500 tons of rails of homogeneous iron, required for the Northern of Spain Railway; and another, of 7000 tons of rails and accessories, to be furnished by MM. de Dordot Frères, for a line from Braine-le-Comte to Gand. In the Liège basin, ordinary pig is now worth 21. 14s. to 21. 16s. per ton, but that obtained from a mixture containing scoria is done at a trifle lower, say 21. 12s. per ton. At Charleroi, various qualities of pig have been quoted of late as follows:—superior, 21. 16s.; mixed, 31. 3s.; strong and hard, 31. 2s.; speckled, 31. 4s. to 31. 8s.; grey and superior, 31. 12s. per ton. The quotation for rails average 57. 16s. to 57. 18s. per ton at the works. Sheets are dealt in at 87. to 87. 16s. per ton for No. 15 of the English standard, but as regards the export of large lots, the quotation has fallen to 77. 8s. per ton. As has been stated recently, all the Belgian metallurgical works now manufacture girders, and contracts have been concluded at prices ranging from 57. 16s. to 67. 8s. per ton. Fine plates are easily "placed," being forwarded into France and Switzerland. A new rolling-works has just been put into activity at Marchienne. For some time past Belgian metallurgical establishments have been considerably extending the mines in which they are situated. To the mines of the district between the Sambre and Meuse, and to the oligites of the Meuse, the mines of the Luxembourg and the hydrated minerals of Poix, in the Ardennes, have been successively added, as have also been the scories of forges, the refuse of rolling-works, &c. From the competition thus provoked a fall of prices has necessarily arisen, and the various descriptions of minerals are now offered at very cheap rates, although it is probable that the reduction in quotations has not yet attained its full development. A general meeting of the shareholders in the Cornhill Company has just been held, to consider the ratification of an amalgamation proposed to be entered into with an Austrian Company, possessing rich bearings of coal, minerals, and zinc-works, with three dissentients, that the amalgamation should take place, that the combined undertakings should assume the name of the Austro-Belgian Metallurgical Company, that the duration of the company should be extended over a further term of years, and that additional floating capital should be raised for the purpose of developing and extending the operations of the concern at its two centres of production.

In France, the works of the basin of the Nord are selling rolled mixed irons of the first class at 87. 16s., with a variation of 8s. per class; sheets of the first-class at 117. 4s., with a majoration of 17. 4s. among the succeeding classes; puddled plates, 127. 16s.; ditto hard iron, 167. 16s.; ditto wood-produced, 247. per ton. Refined pig has been quoted 47. to 47. 4s. per ton. In the Moselle district, prices are slightly below those just indicated. Pure refined wood-produced pig has been dealt in at 87. 12s. per ton. Quotations for mixed pig have a large margin, according to the composition of the mixture of the combustibles. This mixture varies considerably, the proportion of coke used in the fabrication ranging from 25 to 75 per cent. The present price runs from 47. 8s. to 57. Several rolling-works are making reductions of prices, in order to obtain contracts; but the tariff current for irons may be said to average 97. 4s. to 97. 12s. for first-class, with a scale of 4s., 6s., and 8s., between the classes. The forges of the Lyons district quote first-class iron at 97. 4s., with a scale of 8s. between the classes; hoop iron, 107. 16s.; first category; 117. 12s.; second category; 127. 16s.; third category, 137. 12s.; fourth category. Important works have been undertaken of late years, in order to facilitate the transport of the raw materials required for metallurgical industry, have not failed to attract the special solicitude of the French Government, and last year did not yield less satisfactory results under this head than 1861. Thus, in the northern district of France, not only—as was stated last week—has the Courrières Coal Mining Company obtained a concession for a navigable canal intended to bring the products of its mines to the canal of the Haute-Deule, but the three coal companies of the Lys Supérieure, Violeigne and Neux, and Lens, have been authorised to construct three branches to put their pits of extraction in direct communication with neighbouring railways and canals. Two railways conceded to the Northern Railway Company by decree dated July 6, 1862—one from Lille to Tournai and the other from Valenciennes to the St. Quentin and Reims—will also be useful in similar kindred respects. The line from Arras to Hazebrouck, via Bethune, which is of first-class importance as regards the collieries of the Pas-de-Calais, is now in full activity; and the mines of this department, under the influence of the new outlets which have been for some years opened to them, have seen their extraction, which scarcely amounted to 4,000,000 tons in 1857, increased to 8,000,000 tons in 1862. As regards the coal basin of the Gard, its products must, without doubt, find a demand principally on the shores of the Mediterranean; but it was not without importance as regards the future development of its working, that the basin should also be able to run off its supplies towards the departments of the centre of France. The concession of a railway from Brioude to Alais, which has been lately granted to the great Paris, Lyons, and Mediterranean Railway Company—the most important enterprise of the kind in the world—will fill up the only remaining gap of importance which arrests the tendency of the basin of the Gard to extend its connection. The new line will also, at the same time, facilitate the running off in the direction of the south of the coal of the Brasse basin, the development of which will be promoted.

As regards the central district of France, a decree, dated Oct. 22, 1862, authorised the execution of a branch railway to unite the coal basin of St. Etloi to the Moulins and Montluçon lines. In the present state of affairs this basin has only ordinary roads by which to deliver its products, but as soon as it has the benefit of railway communication it will, without doubt, attain an important position in connection with the consumption of the empire. The Aubin basin, which has hitherto only been enabled to forward its products by the St. Christophe and Montauban Railway, has, by the opening of the line from Brives to the Lot, been placed in communication with the departments of the south-west; and coal from this rich basin will henceforth be in a position to compete advantageously with that delivered from England. Finally, the Graissessac coal basin, under the influence of the railway uniting it to Béziers, and, by consequence, to Cette and the coast line of the Mediterranean, has its total extraction expanded in a notable manner. Thus, in 1860, this extraction did not exceed 69,400 tons, while in 1861 it amounted to 103,000 tons, and in 1862 to 117,100 tons. It may, then, be affirmed without hesitation that the measures adopted by the Government to facilitate on all points the movement of mineral combustible have already realised important results. Thus, notwithstanding the deplorable events in America, and the inevitable reaction which they have involved in Europe, the coal production of France has not ceased to increase; in 1859 it did not reach 7,600,000 tons, but in 1860 it rose to 8,039,168 tons, in 1861 to 8,400,000 tons, and last year it appears to have reached an aggregate of 9,400,000 tons. We gave some details with respect to the production of iron in France last year in a review of the *Mining Journal*; but it may be desirable to extend the analysis a little further. In 1862 the total quantity of pig produced in France was 1,063,000 tons, while in 1859, the year preceding the introduction of the Treaty of Commerce, it was only 856,152 tons. Notwithstanding, too, the increase of about one-fourth which here appears, France imported from England last year rough pig to the extent of 160,000 tons; there has, then, been a great development since the Treaty of Commerce both in the production and in the consumption. With respect to iron, the statistics collected indicate the same results. Thus, in 1859 the quantity of iron produced with charcoal was 90,654 tons; with the two combustible mixed, 16,933 tons; and with coal 412,511 tons; making a total of 520,099 tons. In 1862, the production with charcoal was 71,100 tons, nearly 20,000 tons less, it will be observed, than in 1859; but, on the other hand, there was an increase of 12,600 tons in the production with the two combustibles mixed, and of nearly 190,000 tons in the fabrication with coal, so that, on the whole, the production was at least 180,000 tons larger than that of 1859. The importation of iron from England into France in 1862 may be estimated, exclusive of plates and steel, at 122,000 tons, so that, as with pig so with iron, the *réserve* of competition now in force appears to have been, on the whole, profitable both to the producer and to the consumer. We may add that in 1862 ten concessions were granted of mines of combustible minerals, extending over 17,684 acres, of which three were in the department of the Moselle, two in the Haute-Gard, and one each in the departments of the Allier, the Hautes-Alpes, the Aveyron, the Pas-de-Calais, and the Haute-Saône; three concessions of mines of ironstones, extending over 6042 acres, of which two were in the department of the Ardèche, and one in that of the Hautes-Pyrénées; eight concessions of mines of copper, lead, silver, and other metals, extending over 32,664 acres, of which two were in the department of the Var, and one each in the departments of the Ariège, the Gard, the Hérault, the Lozère, the Moselle, and the Rhone. Altogether, then, 21 concessions, extending over 85,390 acres, were granted last year. Among a number of gentlemen also recently raised to the grade of Chevaliers of the Legion of Honour may be mentioned the following:—M. de Cissac, engineer in the Imperial Corps of Mines, for improvements in metallurgy and the working of mines; M. Dreyfus, forge-master at Ars-sur-Moselle, for the creation of a new metallurgical industry in the east of France, and for superiority in the fabrication of stretched irons; M. Fontaine, manufacturer of machinery at Chartres, for superiority in the construction of hydraulic turbines; M. Giffard, civil engineer of Paris, for his

"injector," now so well and widely known; M. Imbert, manager director of the Rived-Gier Coal Mining Company, for improvements in working collieries; M. Paul Morin, director of an aluminium manufactory at Nanterre, in the department of the Seine, for initiating the industrial production of aluminium; and M. Maximilian Fougnet, director of the Carling Colliery Company, in the Moselle, for improvements in working mines. It is thus that Napoleon III. awards, and at a cheap rate too, every encouragement to deserving inventors.

Business in copper has been inactive at Paris, Chilean having been feeble at 89 l. 10s., while other sorts remained without change. At Havre the sale is mentioned of a lot of 5 tons of Lake Superior, Minnesota mark, at 104 l. per ton. In consequence of rather limited supplies, prices have been firmly supported at Hamburg; at Cologne and Berlin, rates have been almost nominal. Transactions in tin have been distinguished by greater activity at Amsterdam and Rotterdam, where different lots, amounting altogether to more than 10,000 blocks of Banca, have been dealt in at prices ranging from 69 1/4 to 70 1/4 d.; at present it is difficult to buy Banca below 70 d. The Paris market has been almost without transactions, but late rates have been maintained. Cologne has been calm, and at Hamburg the sales effected have been limited to some small lots. The lead market has been calm at Paris without variation in prices. At Marseilles lead in saumons, first fusion, has been quoted 197. 6s.; in shot at 207. 8s.; while rolled and pipes have realised 217. 4s. At Hamburg the article has realised full prices; for large lots for delivery at distant dates there have, nevertheless, been sellers at prices below the current quotations. Transactions present little interest at Berlin and Cologne, and are limited to the immediate requirements of consumption. Zinc has been in more favour, and prices have generally been firmer during the last few days. The price of rough Silesian has been maintained at Paris at 18. 16s. per ton. At Breslau, Hamburg, and other points rather more business has also been doing at full rates. Business generally on the Continent stands in urgent need of a period of repose and peace among the nations both of the old and new worlds; even as it is, however, transactions have acquired a very considerable development during the last 10 years.

REPORT FROM NORTHUMBERLAND AND DURHAM.

FEB. 5.—The Coal Trade continues sluggish, and, as might be expected, the long depression it has been subjected to, with only indifferent prices, is beginning to cause much anxiety as to the result of such a very unsatisfactory state of things. The reasons given are various—first, the derangement in mercantile affairs caused by the disastrous American war; then we have the coal factor system; and a great authority in last week's *Mining Journal* throws the blame on the coalowners themselves, and their reckless mode of consigning coals to London. What there may be in the coal factor system detrimental to the interest of the coalowner we do not pretend to know, we have no knowledge of that part of the subject; only it does appear preposterous that 8s. or 9s. per ton should be required to take the coals from the Pool in the Thames into the hands of the consumers. But it might, perhaps, be contended that even taking the system of consigning the coals to the large ports with the evil is not going to the bottom of the subject. The production of the coal in very much larger quantities than required by the trade appears to be the foundation of the evil. When pits are sunk and establishments formed capable of producing large quantities of coal the produce must be sent somewhere if possible, even at the lowest remunerative profit; to stand still, or only work one-half or two-thirds time, as too many have been compelled to do lately, is the worst of all evils. The quantity of coals produced at some of the collieries in Northumberland is enormous; it is not at all uncommon for one chaldron of coals to be drawn at a lift, and this at a great speed; so that some of those pits produce 35 keels per day, or 280 chaldrons. Although there is no limit to the production of coal there is a limit to the demand, and with heaps of coal some three or four years old it need not excite surprise that the trade should be in a bad state; and, as we have before remarked, collieries, as well as other works, must if possible be kept going. The only feasible method, therefore, of curing the evils complained of would appear to be to restrict the production of coals within the limits of the demand, and to cease sinking new shafts until the trade has fully reached the means of production.

The Wylam Colliery has been suspended on account of an influx of water, supposed to proceed from the River Tyne. This is a very old and extensive colliery, situated about seven miles west of Newcastle; and lately they have been engaged in taking pillars off beneath the bed of the river, which, causing a subsidence of the roof, an influx of water has been the result, which has flooded the greater part of the workings. The colliery is, consequently, suspended for some time, until a pumping-engine of considerable size can be erected. The whole of the men and horses were got out without difficulty. It is not expected that the works can be resumed in less than three months at the least.

A slight explosion took place at Burradon Colliery on Monday, by which William Kirkby, one of the overmen, was severely burnt. It appears that about 400 yards from the shaft there is a branch-off from the main road, where a considerable quantity of gas is given off, and it had been determined to construct an air-crossing here. Kirkby had gone to examine the place with a candle, when an explosion occurred. There was little or no concussion, and no damage done to the workings. The men and boys were laid idle for the day by the occurrence, but that was the extent of the mischief.

According to the *Durham Advertiser*, the collieries in the west of the country are working very indifferently, and have been for some time past. In the eastern portion matters are much better, and all are working very fairly. The Haswell Company have lately vastly extended their operations, and it is stated that 900 coal-hewers alone are employed in the mine, working full time. Thornley, Casop, and Kelloe are working well, and Coxhoe is now showing a great improvement. The Hetton and Dalton Collieries show signs of great activity. The Lambton Collieries have been well employed, except the Philadelphia Pit, which, from some cause or other, has worked very indifferently, the men for some time past having only been employed from five to seven days a fortnight. The Marchioness of Londonderry's collieries have been pretty fairly employed. Considering the general commercial depression prevalent throughout the country, the coal trade on the Wear, so far as production is concerned, may be considered in a very fair position.

THE HARTLEY COLLIERY FUND.—A correspondent of the *Times* calls attention to the fact that a large amount of the national subscription of 70,000 l., raised for the relief of the Hartley widows and orphans, remains idle and unapplied. He says:—"It is admitted that this sum far exceeded what was wanted, and it is believed that not much more than 30,000 l. has been paid to the sufferers by that accident. A bold claim, on behalf of the subscribing public, that an account be rendered. The surplus may have been wisely expended; if so, let the truth be known. In plain Saxon English I ask—Where is the money? Concealment in such a case will assuredly tend to paralysed the hand of Charity in future. Nay, is not that hand smitten already? The appeal on behalf of the destitute victims of the recent appalling calamity at the Edmund's Main Colliery has fallen upon deaf ears—and who can be surprised? Mutterings of discontent in reference to the Hartley Fund grow louder and louder, and an indignant howl will soon be heard through the land, unless a full disclosure is made. I do not believe there has been anything wrong; but we have a right to exact an account of the stewardship. If the surplus is invested in readily convertible securities, it might have been expected that, at least, part of it would have been devoted to assuage the sorrows of the poor women and children so suddenly and cruelly deprived of husbands and fathers by the Edmund's Main Colliery explosion. I may, perhaps, be charged with ignorance of the law, and be told that such an appropriation would be considered a breach of trust. However this may be, the voice of the public would have proclaimed an indemnity. But who would have been the accusers in such a case? Suppose some 40,000 l. of the Hartley Fund had not been applied to the purpose for which it was subscribed by the public—is this a breach of trust? The money was not given because the accident happened in Northumberland; county distinctions never entered into the heads of the donors. Then, why out of the superabundance should not something have been granted to Yorkshire? The public would not tolerate any meddlesome interference with the funds which proceed from their benevolence; but they would, probably, desire that the disposal of large surplus sums should not be entirely left to the decision of those who may have acted merely as almoners. If this be allowed, local jobs will certainly be perpetrated with money given by the public for totally different objects."

REPORT FROM MONMOUTH AND SOUTH WALES.

FEB. 5.—The unfavourable weather which has prevailed for the last fortnight has considerably affected the Coal Trade, and many of the collieries have been but partially employed. This state of things, however, will not last long, and once the fine weather sets in it is expected that the coal trade will again show signs of increased activity. There is no change to report in prices, and masters continue to complain of the small profits realised. The ironworks of the district have not been so unfavourably influenced by the weather, and, upon the whole, the Iron Trade is in a fairly active state. The orders are coming in pretty briskly since the commencement of the year, and America is still a good customer for iron. Quotations have slightly receded during the last fortnight, mainly in consequence of the increase in the Bank rate of discount. The extensive preparations which are being made for an extension of operations clearly prove, however, that the ironmasters have confidence in the future of the trade, and the conviction is daily becoming stronger that peace on the basis of Southern independence is the best thing that can happen to both the iron and tin trades of this district.

There are some interesting items of railway intelligence to record for the past week. The half-yearly meeting of the Llanelli and Llandilo Railway was held at Morley's Hotel, Trafalgar-street, on Saturday—Mr. Biddulph in the chair. The report stated that the earnings of the company for the half-year ending Dec. 31 amounted to 16,357 l.; and the working expenses, including the hire and purchase of wagons 5734 l.; leaving a balance of 7653 l. The receipts for the half-

year showed an increase as compared with the corresponding half of the preceding year of 1877, while the expenses had only increased 459l.; leaving a net increase of 1368l. After the payment of interest on debentures, and the rent of the Vale of Towry Railway, there remained 4987l. applicable to a 5 per cent. dividend on the preference stock, and to a 6 per cent. dividend on the B. preference shares, amounting to 1851l., and for the ordinary stock 3116l., out of which the directors recommended a dividend at the rate of 12. 7s. 6d. per cent. for the half-year; making, with the 12s. 6d. declared in July last, 2 per cent. for the whole year on the ordinary stock, and leaving a balance of 407l. for the next account. The traffic receipts showed a steady and progressive increase, and when the through route with the North will be opened, it is expected that a large increase of traffic will be the result. The capital account showed a balance of 1104l. against the company. The report was adopted, and the dividends recommended will be payable in March. The retiring directors and auditors were also re-elected. On Thursday the standing orders were declared to have been complied with in the cases of the Bristol and Gloucester Junction Railway, at an estimated cost of 360,000l., and the Vale of Neath for new lines at Merthyr and Aberdare, to amalgamate with Swansea and Neath, and to raise 180,000l. The proposed Cardiff, Caerphilly, and Aber Railway was among the cases of non-compliance with the standing orders, and also the Brecon and Merthyr Tydfil Junction new lines. The standing orders were also declared to have been complied with in the following cases:—Penarth Harbour, Dock, and Railway, for leasing the line to the Taff Vale Railway; Aberystwyth and Welsh Coast for further lines in the district, and to raise 240,000l.; Mid-Wales to raise a further sum of 200,000l. to carry out new works; and the Whitland and Milford Haven for a line from the South Wales at Whitland to Begelly and Pembroke and to raise 240,000l. capital.

The recently promoted "Bank of Wales" is looked upon with peculiar favour throughout South Wales, and it is reported that Messrs. Bailey and Co., bankers, of Newport, Monmouth, and Aberystwyth, are prepared to transfer their business to the new company, on certain conditions. Competition is what is wanted in the district, however, and there is no doubt that the new bank will receive a fair share of business, independent of any amalgamations which may be brought about.

The report of the Risco Widows and Orphans Fund Committee has been issued, and it appears that the total subscriptions received by Mr. S. Vernon, the treasurer, amounted to 6446l. 7s. 7d. The number on the fund on Jan. 1, 1861, was 51 widows, 107 children, and 13 aged parents, and the weekly allowances amounted to 32l. 6s. 6d. Since that time the allowance to four of the widows has been discontinued for misconduct, and several others, who were desirous of marrying, received sums varying from 10l. to 30l. each, on giving a full receipt for all claims against the fund. The only incidental expenses incurred had been the advertisements, postage, and receipt stamps; all other expenses having been borne by the Risco Company. The number on the fund had been reduced on Jan. 1 last to 35 widows, 71 children, and 11 aged parents, and the weekly payments to 14l. 3s. 6d. The balance of the fund in hand, at the same date, amounted to 4417l. 1s. 4d.; which, it is believed, will be amply sufficient to meet all claims that may be made upon it.

The arrivals at Swansea include—The Alliance, from Seville, with 60 tons of copper ore for Richardson and Co.; Dartmouth, from Seville, with 102 tons of copper ore for Richardson and Co.; Curraghmore, from Almeria, with 220 tons of copper ore for Williams, Foster, and Co.; Madeline, from Caldera, with 218 tons of copper regulus, and 307 tons of silver ore, value 15,300l., for Henry Bath and Son; Stranger, from Guayaquil, with 315 tons of unwrought copper, for Henry Bath and Son; Sarah Burney, from Caldera, with 230 tons of copper regulus, and 185 tons of copper ore, for H. Bath and Son.

BREACH OF COLLIERY RULES.—At the Merthyr Police Court, on Wednesday, Jan. 28, before Mr. J. C. Fowler, stipendiary magistrate, William Abraham, collier, was charged by Mr. John Moody, viewer of the Cyfarthfa Collieries, with smoking tobacco in a stall on the 4-foot vein, in No. 2 Cethin Pit, contrary to the 56th special rule of the said pit, on Friday, Jan. 23. John Eynon, the overman of the pit, said that he went into the pit on the day in question, and smelt smoke; he went up to the place where defendant was working, and found a tobacco pipe under a stone in the gob; he charged defendant with smoking, but the latter denied it then, though he admitted the following day. Mr. Moody, the viewer, said he was sorry to press the charge against the defendant, as he had never found him wrong in anything before; but he had no alternative. Mr. Fowler repeated his usual admonitory observations in similar cases, and stated that since he found a small amount of imprisonment was not sufficiently effective in stopping this foolish and terribly dangerous habit, he would increase the term of imprisonment until he reached the highest penalty authorised by law. Defendant would be imprisoned and kept to hard labour for the term of six weeks.

BOILER EXPLOSION AT THE ABERAMAN IRONWORKS.—On Monday last, about 3 P.M., a serious boiler explosion occurred at the above works, belonging to Mr. Crawshaw Bailey, M.P. Fortunately no loss of life occurred, but from the force of the explosion the seatings of the boiler which exploded, and another adjoining it were completely demolished, and part of the roof over the engine-house carried away. The boiler which exploded is about 30 feet long by 7 feet diameter, with a 2-foot tube inside, was thrown back bodily off its seating about 30 feet, and cut in two in the centre, as with a knife, the one half of the boiler, not less than 6 or 7 tons, was blown to a distance of not less than 50 yards, and spread out on the ground like a piece of paper. It is stated that the boiler was a very old one, and had undergone a great deal of wear and tear. It is very fortunate indeed that the force of the explosion was in the opposite direction to the works, as had it occurred at the other end of the boiler several lives undoubtedly would have been sacrificed, and also great damage done to the Aberaman mill and forge.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

FEB. 5.—On the whole, the demand for manufactured iron shows some signs of improvement, though the trade cannot be described as brisk. Several houses, which were running short of orders, are now able to make full time in nearly all departments, and there is a general feeling of confidence that as soon as the money market gets a little more settled a moderately good demand for iron will be experienced. The dealers in Pig-Iron find the market a shade flatter; in fact, the advance they got at the commencement of the quarter was fully as much as the state of the trade warranted, and if they are compelled to sell now they find buyers rather shy. The demand for coals is not quite so active, but it is still good. The Cannock Chase district is being steadily developed; branch lines are being constructed to run into the railways which cross it, and of the railway hills before Parliament, one for the extension of the Cannock mineral railway from Rugely to the Churnet Valley, near Uttoxeter, so as to give a direct route from the Froghall limestone mines; and another for the extension of the Birmingham and Sutton coal field line to Lichfield, are intimately connected with the development of the minerals which abound in the extensive plateau which forms the central water-shed of Staffordshire and Warwickshire.

An accident, and in its results—causing the loss of three lives—and terrible on account of the cause, occurred at Bradley, near Bilston, on Friday morning last, at the Paget's Croft Colliery, of Mr. A. Wright. Three men, named Howell, Davis, and Kempson, descended the shaft in the tacker-skip, when the rope parted, and they were precipitated to the bottom, and killed. At the inquest, on Tuesday, it was clearly proved that the rope had been cut by a sharp instrument at the place where it gave way. This was at a splice, and two of the strands had been cut through, the third having broken; and the maker of the rope said that it had been cut by a person who had evidently calculated how much to cut it so as to bear the skip, which was first sent down, and again raised, as a test of safety, but to give way when the skip was loaded with persons. Suspicion attaches to a man who did not as usual go down with the first band of men, and who afterwards made a remark that he would not because the rope was bad. The examination was adjourned. It is worthy of consideration whether it would not be well in the preliminary lowering and raising of the skip to weight it beyond the weight of the men who are afterwards to descend.

Meetings of public companies are now being held. The Wolverhampton New Waterworks Company, which having to pay a dividend to the old company, has not yet been flourishing concern, made a net profit last year of 1236l., and a dividend of 1 per cent. on the ordinary shares was declared. The directors of the Wolverhampton and Staffordshire Bank report net profits for the year 1862 of 10,932l., and, after paying a dividend at the rate of 5 per cent. per annum, a balance of 5932l. remained to be transferred to the capital account, which is now 92,091l., its nominal amount being 100,000l. The realisation of the estates of parties who failed in 1857-5 was going on favourably, and 16,431l. had been received during the year on that account, leaving the amount unrealised at 94,052l. The Chairman (Mr. T. E. Shaw) expressed great confidence in the future prosperity of the bank.

The Birmingham Joint-Stock Bank (Limited), which commenced business in Jan., 1862, shows a net balance of profits of 7277l., and after paying 962l. as preliminary expenses, 3000l. is carried to the guarantee fund, and 408l. to next half-year. The premium on the second issue of shares, and the amount now transferred from profits, raised the guarantee fund to upwards of 20,000l. The Bilston District Banking Company, carrying on business at Wolverhampton, have declared dividends and bonuses at the rate of 15 per cent. for one year, and add 1304l. to the guarantee fund, raising it to 25,000l. The Dudley and West Bromwich Banking Company, after declaring dividends at the rate of 5 per cent., appropriate 6200l. towards meeting losses in 1857-8, and in 1854-5. On the whole, the trade of South Staffordshire is much sounder than for some years past.

The suspension of Messrs. G. W. Reynolds and Co., manufacturers of steel for crinoline and steel toys, was announced on Wednesday. The liabilities are put down at about 30,000l., and the firm say "the deficiency (if any) will be inconsiderable."

Mr. F. D. Longe, Assistant-Commissioner under the Children's Employment Commission, is pursuing his enquiries on this subject in South Staffordshire.

REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

FEB. 5.—The reports which have been current during the whole of the week from different parts of these counties represent the trade as in an improving condition, but the late rise in the Bank rate of discount has affected, to a certain extent, the orders for speculation. Without regard to the depression which exists in the manufacturing districts, we have a very steady demand for all descriptions of iron, but more particularly for plates and rails. The renewals which are taking place on our main lines are now more frequent than formerly, and the result is that we should have for some time a healthy trade in all descriptions of ironwork. The building trades are generally dull, and there has been latterly a falling off in the demand for stove grates and other ironwork used in the erection of various buildings. The most remarkable event connected with the manufacture of iron of modern times is the facility which many large firms have now for the manufacture of monster pieces of wrought-iron. The huge armour plates now used for our vessels of war are made with wonderful rapidity,

considering the immense weight of iron brought under the control of machinery and manual labour. We were recently much interested in the inspection of a large beam pumping-engine, which has been manufactured by the Butterley Iron Company, Derbyshire, and is now in course of erection at the Clay Cross Company's works. It is calculated to work about 300-horse power, and will, with the aid of the equally extensive pumping machinery attached, drain a large tract of mineral ground. This gigantic piece of machinery is rapidly approaching completion, and it is anticipated that in a few weeks it will be at work.

The Coal Trade is in a healthy position throughout the whole district, and had it not been for the cotton famine we should have had an unprecedented brisk season. The stocks in the hands of merchants, however, had been kept so low that even with the return of the winter season a sufficient impulse has been given to keep the trade in a state of activity. Unfortunately, in several districts of Lancashire an attempt is being made to obtain an advance in prices, but we believe that in all other districts the men are, on the whole, contented with current rates. London and the southern markets have drawn largely this season from the Yorkshire and Derbyshire coal fields. The directors of the Midland Railway, on Tuesday, gave a pledge that they would make a new line to intersect the large coal field lying in the Dronfield district, which will afford an outlet for a wide mineral district. Fresh evidences are also being afforded of a desire to develop the mineral wealth of the Derbyshire Peak, which will be brought fully out when the new line from Rowsley to Buxton is opened.

The desirability of a thorough supervision over all ironstone mines is becoming daily more and more apparent. The frequency of accidents from the want of a proper enforcement of discipline is too evident, by the numerous fatalities which are recorded, and it would be a great boon if some steps were taken in the present Parliament to have ironstone mines included under the same system of inspection which prevails in collieries.

The depression in the cotton industry, and its concomitant train of evils, has seriously checked speculation in lead mines, so that for many months past there has not been that active spirit of enterprise manifested which would otherwise have been shown. Another prejudicial influence has been the failure of some other existing speculations. The stoppage of the North Derbyshire Mine, in which so many persons were interested, has thrown a damp on mining speculators, but with more capital we are of opinion that the mine would do well. The Mill Dam is to be sunk several fathoms deeper, and a large Cornish engine erected.

The local share market has been dull, and we have not seen our mining stock quoted at such low figures for some time past.

THE TIN TRADE.

A very large business has been done during the past month, resulting in a rise in Straits and Banca of 3s. per ton. The noticeable feature still is the continued demand for Banca and Japan; shipments of Banca have actually been made from London to that market, and, on *ditto*, that some large recent purchases of both Banca and Straits are for that destination. No shipments are being made from Singapore to Europe, the demand continuing for Banca, at prices equal to 131l. 10s. cost and freight to London. From Penang we have advice of a shipment, but the purchase was made some time back, and freight engaged; our advice induces us to believe that we shall have but a small supply for some time. Our stock here again shows an increase, but the quantity on passage is much smaller than last year, and there is every prospect of the Dutch sale of Banca being small. Consumption in this country continues decidedly slack, and very little foreign is being used as compared with English tin, as the latter is comparatively much cheaper. That the English smelters have been well stocked seems uncontroverted, and the immediate future of our market very much depends on whether they advance their official prices or not. Looking further forward, the short supply of foreign tin will have its effect; and it is a fact to be borne in mind that in 1857, when the China demand was excessive, prices advanced to 150l. per ton.

The quantity of tin here and in Holland on Jan. 31, was as follows, compared with the three preceding years:—

	1861.	1862.	1861.	1860.
Stock in Holland	Slabs, Tons. 60,405 = 1880.	48,806 = 1820.	61,291 = 1860.	51,368 = 1850.
Arrived towards next sale ..	75,170 = 2239.	81,620 = 2529.	102,361 = 3150.	82,906 = 2570.
Stock here	2513	1800	403	800

Total tons

The quantity of Straits now afloat for Great Britain is 254 tons, against 1265 tons last year, and 768 tons in 1861, and to the continent of Europe 60 tons, against 130 tons last year.

STRAITS.—The sales during the past month exceeded 20,000 slabs, at prices ranging from 116l. 10s. to 120l. cash, and 117l. to 121l. three months, for fine square bottomed; round bottom, and anything not really fine, not saleable within 1l. or 2l. per ton. The market closes very firm.

BANCA.—The sales amount to about 4000 slabs, from 118l. up to 120l. 15s., mostly to arrive from Holland; of the above, 2000 slabs are intended for Japan. In Holland during the early part of the month the market was very dull at 69s. During the last ten days a large demand has sprung up, and the sales amount to 12,000 slabs, closing firm at about 70s., but advices by telegraph report sales at 71s.

ENGLISH TIN. early in the month, was very flat, and considerable sales made under official price; during the last week the makers were much firmer, and no sales took place under official prices, several declining to sell at all, except in very small quantities. An advance is expected.

The official returns from Holland are as follows:—

	1863.	1862.	1861.
Stock in Holland, Dec. 24	Slabs 60,740	53,971	58,661
Delivered up to Jan. 31	9,335	5,103	4,123

Stock on warrants, Feb. 1

Arrived towards next sale

The arrivals of tin in London during January were as follows:—Straits, per *Woodville*, 1894 slabs; *ditto*, per *Yine*, 1067 = 2661 slabs; Banca in Holland, 850; total, 3511 slabs. Besides 600 slabs Banca to Bristol, and 279 slabs Straits to Liverpool.

We estimate the stock of tin in warehouse here at 5513 tons.

The shipment of tin from Singapore to Great Britain from Nov. 24 to Dec. 24 was nil; continental Europe and America also nil—price 53s. 4d.; during the year 1862 it was 13,872 against 17,104 in 1861. From Penang, from Nov. 24 to Dec. 24 the export was— to Great Britain, 3530 pekuls; America and continental Europe, nil; price, 25s. 4d. The export to Great Britain during 1862 was 31,546 pekuls; in 1861, 39,526 pekuls.

TIN-PLATES.—The trade is decidedly flat. Some very large purchases of coke have been made at very low prices for forward delivery, and this tends to make coke generally very firm; but carcoals are depressed, and obtainable at prices quite incompatible with the cost of production. Cokes are quoted in Liverpool 21s. 6d. to 22s., and in London 23s. Charcoal in Liverpool, 25s. to 28s.; really first-class brands obtainable at 26s. 6d.; London, 6d. per box more.

PURIFICATION OF BLACK LEAD.—Since the exhausting of the celebrated black lead deposit at Borrodale, in Cumberland, some difficulty has been experienced in obtaining a really good article at anything like a moderate price, the purest specimens being now derived from Barreros, in Brazil, and containing very minute traces of iron. Artificial graphite may be formed by placing an excess of charcoal in contact with fused cast-iron: a portion of the charcoal dissolves on the iron, but separates on cooling, in the form of large and beautiful bristles. At the recent International Exhibition a process was described by Professor Brodie, which is entitled to attention. The crude graphite is first pulverised, then boiled in hydrochloric acid to remove the iron and manganese, after which the powder is washed in water, dried, and then mixed with heated dilute sulphuric acid and chloride of potash. By this means the graphite is caused to absorb oxygen, and being submitted to a high heat, the mass may be crushed, and the pure plumbago obtained in the form of powder.

THE LIVERPOOL TUBULAR LIFEBOAT "RESCUE."—The national demonstration in Liverpool, on the 24th of last month, on the occasion of the launch of this boat (presented to that port by the Royal National Lifeboat Institution), in the presence of upwards of 50,000 spectators, may render a slight sketch of the tubular lifeboat acceptable to our readers. The tubular lifeboat was invented in 1830, by the late Mr. Henry Richardson, of Aberllyn, Merioneth, and during that and the following year four boats of different sizes were built. The subject remained in abeyance for years, when the present Mr. H. T. Richardson, the son of the inventor, caused two small boats and a working model (the *Challenger*) to be constructed. She was 40 ft. in length, tubes 2 ft. 6 in. diameter, rowed 16 oars, and carried two lug sails and a jib. At this period a patent was secured; the boat was subjected to the severest trials that could be devised, and in all she was successful. He then challenged the lifeboats of England to competition, to ascertain which was the best, and at length the challenge was accepted by Mr. Beeching, with his prize boat. Consequently, in 1852, Mr. Richardson, his father, and crew, departed on the voyage, round the Land's End, from Liverpool to Ramsgate, but on reaching that port, it appeared that Mr. Beeching had sold his boat, and the trials were thus evaded. A model of the tubular boat was one of those sent in to compete for the Duke of Northumberland's prize, and was afterwards exhibited at the Exhibition of 1851. The advantages of these boats are, that they can neither upset, sink, swamp, or be water-logged. We may add that, in 1856, the Royal National Lifeboat Institution, in compliance with the request of the late Colonel Morgan and the Lifeboat Committee at Rhyl, North Wales, placed a tubular boat on that station; the services rendered by this little boat (the *Nodda*) in saving life and assisting vessels into port, have greatly contributed to the desire of having the *Rescue* constructed for Liverpool.

PAPER FROM REFUSE VEGETABLE SUBSTANCES.—We have on several previous occasions referred to the improvements in the treatment of raw vegetable substances for the manufacture of "half stuff," introduced by Dr. R. H. Collyer, of Alpha-road, Regent's-park, and we are glad to learn that he is now preparing forthwith to carry out his process on a large scale at Gloucester. The practical value of Dr. Collyer's invention may be judged of from the circumstance that he is the only inventor who has been honoured with any marked recognition for the production of paper material, although he had more than 30 competitors from various nations. In their official report the jury remarked that "Dr. Collyer (United Kingdom 1055) shows straw and other materials in the various stages of preparation for making paper, produced by a process which he has patented; this in the opinion of the eminent experts consulted by the jury is well entitled to special notice, as a decided improvement on the ordinary methods in use." The expression, however, of such an opinion is easily accounted for when the comparative tables of cost for the production of 1 ton of "half stuff" by the ordinary and by Dr. Collyer's process is considered. According to the present methods there is required—raw material—say, esparto, straw, or flax waste, 2½ tons, worth 9l.; alkali, 9 to 10 cwt., 4l. 10s.; bleach, 10 cwt., 8l.; coals, 2½ to 3 tons, 2l.;

and labour, 11s. = 21l. 15s.; whilst with Dr. Collyer's process the same result is obtained with raw material, 2 tons, 8l.; alkali, 3 to 4 cwt., 12l. 15s.; bleach, 4 to 5 cwt., 17l. 15s.; coals, ½ ton, 9s.; and labour, 6s. = 12l. 6s., showing a positive saving of 9l. 10s. per ton. But this is not all, for we are assured that the difference of quality is so great that the half stuff produced by Dr. Collyer's process is worth at least from 6l. to 7l. more per ton, although Dr. Collyer does in eight hours the work that has hitherto required 32 hours. But it might be asked—does the expense of the requisite plant neutralise, or more than neutralise, these advantages? Certainly not. The requisite plant for turning out 3 tons of half stuff in the 24 hours is estimated at 1800l., and as the minimum net profit is put down at 10l. per ton, it follows that the amount expended on plant would be six times repaid in a single year. This income, moreover, could be increased indefinitely, it being stated that the demand is practically unlimited.

WEATHER PREDICTIONS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—A question has been put to me in reference to a theory put forward in a new work on the weather, by Admiral Fitzroy—namely, "That the condition of the air foretells coming weather rather than indicates weather that is present; the longer the time between the signs and the change foretold by them, the longer such altered weather will last; and, conversely, that the less the time between a warning and a change the shorter will be the continuance of the predicted weather." I unhesitatingly state that the Admiral's theory is all that is mythical in the extreme, and that there is nothing in the order of our climate that will bear out the Admiral's theory. To say that the air itself foretells coming weather is simply absurd; the air in all cases is in strict accordance with the present state of the weather, and the change in the air from one class of weather to another is concurrent.

For instance, in predicting the late gales and present mild weather I have not had any occasion to wait for the Admiral's atmospheric changes. Nay, more; I can now predict a gale for about Feb. 25, 1864, and it will then occur; therefore, there will be plenty of atmospheric changes between the present and the date which I have now given. If the Admiral is in a position he does not understand, he should not advance absurd theories, and put them forward as facts. The gales foretold by me in my last letter, for about the 3d inst., occurred with great accuracy. With regard to the future, strong winds will occur again about the 8th, 12th, 13th, 16th, and about the 20th inst., with rather unsettled weather to about the 16th. The weather, on the whole, will continue mild. Let any person examine the history of our climate as I have done, for ages back, and I repeat that no two hours, days, or years can be alike throughout all ages. The order of all the climates of the earth is change, not repetition; and all this was sketched out by the Divine hand when the heavens were first framed.

Some people are under the impression that when mild winters, like the present, occur our climate is unhealthy; such is not the case. Mild winters are generally attended with strong gales. These violent winds perform the office, although in a different way, of the severer weather. These winds carry away all atmospheric impurities, and render the air we breathe pure and healthy to both the animal and vegetable world.

26, Throgmorton-street, Feb. 5. GEORGE SHEPHERD, C.E., Author of the "Climate of England."

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

EAST JANE.—At the meeting, last week, Captain John Seecombe was appointed manager and local purchaser, and took entire charge of the mine. Special reports were read to the meeting from Capt. H. James, Mr. Francis Pryor, and Captain Hancock, stating that the adit had been driven through a lead lode for 70 fms., and upwards, and that as the shaft was down below the adit 12 fms., carrying a good lode, and in a beautiful channel of ground, there was no reason to doubt that the lower levels would be found highly productive. Mr. Pryor's report stated that, as a proof of the value of the lode, the back and drilge of the adit alone had already produced 175 tons of lead, realising 2500l. Capt. Hancock reports that the levels and stops are all now brought into good working order, and that during the short time he has been there he has prepared nearly 30 tons for sampling, which will nearly pay cost for the time. Great credit was given to him for the manner in which he had managed the mine during the time he was in temporary charge.

NORTH ROSKEAR.—This mine was inspected on Wednesday for a large shareholder. The inspector valued the lode in the 184 seat at 75l. per fathom, and the winze below the 174 at 75l. per fathom, and reports favourably on the mine.

SETOX.—This mine has been favourably reported on. The bottom levels are very rich.

WHEAL AGAR.—The cutting of the East Pool lode, which in the latter mine is so exceedingly rich, has caused a great demand for shares in Wheal Agar, at from 6 to 6½. Recollecting that East Pool shares are now about 600l., and will in all probability soon reach 1000l. per share, makes Agar shares one of the best, if not the best, speculations in the mining share market. The management is first-class, the district unequalled, and the mine prosecuted with the greatest vigour.

WHEAL TRYPHENA PENDARVES.—This mine, now about to be vigorously worked by Mr. Francis Pryor, is within the lands of Mrs. Pendarves, and of Sir R. R. Vyvyan, Bart., in the parish of Camborne, and bounded on the east by Condor Mine and Wheal Harriet; on the north by West Stray Park and West Condor Mines; and on the south by Tolcarne Mine. There are five known lodes in the sett (two of copper and three of tin), but only one of them has been tried under the adit level. Tryphena, of main lode, which was worked from the year 1843 to that of 1854, and yielded about 40,000l. worth of tin, including the amount returned from the burrows since the latter date. The price of black tin during that period varied from 38s. to 55s. per ton; of late the same article has been sold at 80l. per ton; at the present price the returns from that lode alone, after the mine has been laid open, will pay the cost of working. The tin and copper lodes, intersected by the cross-cut going southward into Tolcarne, have not been worked on, but in the adit they present indications of their mineral character. Of the Wheal Harriet north lode a high opinion is entertained, as, a short time before the late company suspended operations, two miners raised, from a little below the adit level, about 6 tons of copper ore, and sold it at 18l. per ton; but the rising water prevented at that time any further prosecution.

CROWAN CONSOLS.—Amongst the many mines brought before the public, there are few more deserving than this. Residing within a short distance, I recently visited the sett, and surveyed the different points of importance, and was agreeably surprised to see the quantity of work done in so short a period, also that all operations were carried on with judgment, care, and economy, thus showing signs of competency and good management on the part of Capt. Seymour. This valuable piece of mining ground embraces several first-class lodes; one in particular is second to none in the county of Cornwall in appearance and general good quality; it is interspersed with rich copper, only 5 fms. from surface. On this lode the engine-shaft is being sunk, and near completion, as deep as the adit level. From the engine-shaft cross-cuts can be extended at little expense, both north and south, to intersect the side lodes, which are in whole ground. Over 1,000,000l. worth of copper has been raised within a mile of this mine, and I have no doubt but this will make one of the best dividend mines in the county.

TYWANNHAILE is much improved in the 90, and a few months' vigorous and economical working will probably show this to be a valuable property.

POLHIGY MOOR MINE.—This mine has been proceeded with in a very spirited manner. There is now on the mine a new 33-in. rotating engine, and 12 stamps, such as can scarcely again be met with; floors, &c., sufficient to drive 100 tons of tin per month, and a good supply of pure water. They have intersected six first-class lodes, and found tin in all, varying in value from 3l. to 20l. per fm., depending, of course, on the settled state of the ground, and for this reason they have been continued further exploring at so shallow levels, except tribute ground, and are at present sinking two shafts north and south, on two very promising lodes; the south, which is now 9 fms. under the adit level, is improving every foot they sink, and all good work for the future. There is every reason to believe, from what can now be seen, that when they get to their next levels, in the course of a month or two, they will get tin enough to pay all their cost. At the account, last week, was a credit for tin sold of 359l. 1s. 1d., beside a quantity of slimes at surface. The mine is in 6000 shares, 30s. per share called up, and only 204. 12s. 6d. arrears of calls; it is a strong proof of the respectability of the company, and, in conclusion, I would say that there is every probability of this being a prize of 1863.

AT NEW WHEAL PROSPIDICK, the operations are being pushed forward in the most vigorous manner. The lode in Watson's shaft, sinking below the 30, is producing stones of tin. In the 20 the lode is worth 12s. per fm., and in the pitch in the back of the 12 the lode is looking well. Wilson's lode has been opened on in the western part of the sett, and found to be 4 ft. wide, and worth 1 cwt. 1 qr. of tin per 100 sacks. A new shaft is being sunk to prove this lode, and which is now down 3 fathoms, in the most congenial kilas the agent ever saw in his life, and great hopes are entertained of an important discovery being made at a shallow depth.

MINING IN THE LANIVET DISTRICT.—Allow me to corroborate the report which appeared in the Journal of Dec. 27, signed "Alpha." The tin has found its way regularly through the extensive sett of Cadwin Common, that scarcely any variation takes place in the monthly returns, and, furthermore, it has been so thoroughly tested by constant testing, that with the machinery the enterprising company have erected, and contemplate, it will be very long before it is exhausted. About half a mile south of Lanivet there is another run of tin ground taken up by the same company, which is also likely to be highly remunerative. Wheal Prosper and East Beam are paying over a hundred per cent. Other attempts have been put up in the same locality, all of which are paying well; and others are now being erected, with a fair prospect of success. A little more than a mile to the north of Lanivet there is the famous Muiberry Hill, almost proverbially known to be tin-producing, and from which thousands of pounds worth have been sold. Here there is a steam-stamp recently erected, with sixty-four heads, and a water-wheel with sixteen. The proprietors are full of expectation of making large returns.

WHEAL CARADON.—A first-class 50-in. cylinder engine, 10 ft. stroke, has just been completed and placed on this sett. It was manufactured by Williams's eminent Perran Foundry Company, near Truro, from drawings furnished by Messrs. Loam and Son, engineers, of Liskeard, and was built and fixed under their personal superintendence. The engine is a beautiful piece of machinery, and combines all the most recent improvements with great power and efficiency. It is not too much to say that great credit is due both to the manufacturers and engineers for the very complete, expeditious, and satisfactory manner in which the engine has been turned out of hand and placed in position. The stack, which is entirely new, has been built of the best materials, and is of the most substantial character. The pitwork has been thoroughly renovated, and the whole of the machinery is in excellent working condition. The 31st inst. being the day fixed for recommending operations at this mine, Mr. Thomas Crittwell of Bath, and Mr. G. F. Morrell, of Fleet-street, London, two of the directors, Mr. Francis Pryor, the manager, Mr. Matthew Loam, engineer, the secretary, Capt. John Brown, and a number of persons from the neighbouring mines, were present on the occasion. After the engine had been set to work, Mr. Pryor, in an appropriate speech, stated the object for which they were assembled, and drank success to the mine, of which he had very sanguine expectations, and coupled with the toast the name of Mr. Crittwell

(the Chairman of the committee), after whom it was proposed to name the engine, and it will be designated Crutwell's engine. The toast was responded to with loud and continued cheering, after the manner of Englishmen, and Mr. Crutwell returned thanks for the compliment which had been paid him, and heartily wished success to the adventurers. It is expected that the water will be forked in a few days, when the sinking of the engine-shaft below the 50 will be resumed, with every prospect of ultimate success.

LONDON AND COUNTY BANK.

The annual general meeting of proprietors was held at the London Tavern, on Thursday, Mr. W. Nicol, M.P., in the chair. The notice convening the meeting having been read, the report of the directors was submitted, as follows:—

The directors, in submitting to the proprietors the accounts of the bank for the half-year ending Dec. 31, last, have to report that, after making ample provision for bad and doubtful debts, including some unusual charges which had fallen on the half-year, interest to customers, expenses, management, rebate and income tax, the net profit amounts to £45,531 1s. 6d., which sum, added to £776 16s. 7d. brought forward, results in a total of £46,307 16s. 13d. From the above sum, the directors recommend that the usual dividend of 6 per cent. be declared, together with a bonus of 1½ per cent. making in all 7½ per cent. for the past year. This arrangement leaves £4351 2s. 3d. to be carried forward to profit and loss new account.

Frederick Harrison, Esq., lately one of the auditors, has been unanimously elected to a seat at the board. This creates a vacancy in the office of auditor, which it is competent to the meeting to fill up.

Proprietors retiring by rotation are—Wm. Nicol, Esq., M.P., James Laming, Esq., and John Tyngbam Howard, Esq., M.P., all of whom are eligible for re-election, and offer themselves accordingly.

The dividend will be payable at head office, or at any of the branches, on and after Monday, the 16th inst.

The Chairman said it was his duty as briefly as possible to lay before the proprietors some details connected with the bank, and also to offer some explanation of the state of the different accounts. The first thing which would, perhaps, be foremost in their minds—as it had been in the minds of the directors for years past—was the decision lately given respecting the Chancery mortgage, which had been the plague-spot of this bank for years past, but was now finally settled, although, he was sorry to say, adverse to the bank. That, however, had been almost expected since the decision given in the Vice-Chancellor's Court; but the Lords Justices decided against the bank. Therefore, they should treat it as having been a diseased limb, pressing upon the health of the bank for years past, which was now removed. Some mystery existed in the public mind respecting this mortgage. The directors, upon previous occasions, had been unwilling to touch upon it, because law proceedings were pending; but now that the question was settled, he might make a few explanatory remarks with regard to it. It was supposed by some people that this sum had to be paid by the bank, whereas it was paid ten years ago. It did not unfavourably affect the profits, because the directors had the right to make any dividend arising out of that sum, although it had been regarded as an asset. The fact was there was lent to the Duke of Buckingham, ten years ago, upon a mortgage of the sum of £100,000, the Bank advancing £50,000 of that sum. The mortgage was amply sufficient, as had been proved—he meant the estate—for they had realised something like £200,000. After Mr. Sadler's death, however, a new claimant sprang up in the person of Mr. Hyam, whose name was not heard in the matter before, when it was, of course, considered a matter to be litigated. The bank was advised that this new claimant stood no chance, and that the mortgage was as sound and good as a bank note. Although it had always been rendered as an asset, it had been as a dead asset, for they had not taken it into calculation in dividing the capital this time last year, and it was £50,000, when a resolution was passed to increase it by £100,000, to £150,000, to the reserve fund. The shares were all taken up at the time, and had been very punctually paid upon; and the amount now stood at £293,751; the amount due by the bank for customers' balances, &c., was £7,151,167; that was a very considerable increase upon the amount this time last year, when it stood at £6,483,000. That was a gratifying feature, because it showed the confidence that the public had with respect to this bank. The liabilities on acceptances and endorsements by the bank, circular notes, and letters of credit, amounted to £66,368, but that was altogether an arbitrary sum. The gross profit for the half-year, after making provision for bad and doubtful debts, and as stated in the report, after some unusual charges had been written off, amounted to £45,531 1s. 6d. The cause of this apparent diminution in the gross profits arose from the fact of the board having taken the opportunity of writing off all the sums that had been paid on account of the disastrous costs and charges of the suits connected with Mr. Sadler. He mentioned that that proprietors might know that so far from the profit for the half-year having been less, that it had increased in a satisfactory manner. The result of the past half-year's operations was the more gratifying, when it was recollected that during that period money had been very abundant, and the rate had been low; but, under all these adverse circumstances, the bank had earned a gross profit for the half-year larger than during any previous corresponding period. Upon the other side of the accounts, proprietors would see that the cash in hand—this is, the amount of money in the tills at their 120 branches—was £981,891, which was larger than usual; the cash placed at call and at notice amounted to £1,159,397; the amount invested in Government and guaranteed stocks was £51,895; and in other stocks and securities, £103,913; discounted bills, notes, and temporary advances to customers, £593,758. That was larger than during the previous half-year, and it was gratifying to know that all those matters appeared to be in a thoroughly safe and sound condition. The advances to customers upon special securities amounted to £24,963. It was from this item that they had taken this Chancery mortgage, and it was proposed to deal with it by transferring from that £100,000; £50,000, was the original amount of that mortgage, but interest had been attached to it for two or three years, and which proprietors had the benefit of at the time. It was right, however, to replace that amount by charging the reserve fund £100,000; so that the reserve fund would, when this amount was deducted, stand at £75,000. The freehold premises in Lombard-street and Nicholas-lane, and freehold and leasehold property at the branches, with fittings and fixtures, stood at the present time at £104,724; interest paid to the customers, £26,364; and salaries and other expenses at the head office and branches, including income tax on profit and salaries, £11,107; that was rather a larger amount than during the previous half-year. The half-year's expenses, including the expenses of the bank, and naturally the expenses had increased. He now came to the profit and loss account. The interest paid to customers had already been stated, as had also the expenses; the rebate on bills not due, carried to new account, £11,373; dividend of 6 per cent. for the half-year, £5,078; bonus of 1½ per cent., £8,769; leaving a balance to be carried forward for future dividend, £4351 2s. 3d. Upon the other side of the account—Balance brought forward from last account, £776 16s. 7d.; and gross profits for the half-year, after making provision for bad and doubtful debts, £45,531 1s. 6d. Since the last meeting a new branch had been opened at Lambeth, which was proceeding very successfully. They had made the Kensington branch an independent one, because the balances had increased so considerably, and the manager at Knightsbridge had his hands quite full. The branch at Covent Garden was a very important branch. As regarded the Borough branch, the bank had secured the lease from the Corporation of London of the site of the old Town Hall, and the building, it was expected, would be finished in the course of the next year. They must all regret the death of Mr. Withers, the late manager of the Newport branch; he had been succeeded by Mr. Anderson, who was formerly at Tunbridge. Mr. Harrison, who had been for many years one of their valuable auditors, had been elected director since the last meeting, and he (the Chairman) was quite sure that Mr. Harrison's services hereafter would prove as efficient upon the board as they had already been proved as auditor. They had all seen that new banks were springing up in all directions. Some of the valuable officers of the London and County Bank had not escaped notice; but he believed at the present moment he might say that none of their leading officers had been tempted by offers of large salaries to join the new undertakings. He concluded by moving the adoption of the report and accounts.

Mr. W. CHAMBERLAIN Jones had great pleasure in seconding his proposition, which was put and carried unanimously.

A dividend was then declared of 6 per cent. on the capital stock of the company for the half-year ending Dec. 31, and a bonus of 1½ per cent., clear of income tax, leaving the balance of £4351 2s. 3d. to be carried forward to the profit and loss new account.

Upon the reappointment of Mr. NORMAN, seconded by Mr. POWLES, a unanimous vote of thanks was passed to the Chairman and directors for the able and efficient manner in which they had conducted the business of the bank, which was acknowledged by the Chairman in appropriate terms.

The retiring auditors (Messrs. H. Overton and J. Wright) were reappointed. Mr. R. H. SWAN, a large shareholder, was appointed auditor, in the room of Mr. Harrison, who had been elected a director. The retiring directors resigned, and in evident recognition of the establishment, for the zeal and ability with which they have discharged their respective duties.

Mr. McKean, in acknowledging the vote, said it was always a pleasing duty to have to return thanks to the large and influential body of shareholders under whom his brother officers and himself had the honour of serving; and he did so upon the present occasion with great gratification, because he felt (as did the directors) that unless they possessed the confidence of the proprietors and of the public, as well as of the directors—who knew them more intimately—the progress and prosperity of the bank must suffer, because they were persons who were brought more immediately into contact with the public. He thanked the proprietors upon this occasion, after seven years of trying anxiety, because the London and County Bank had now commenced a new lease of prosperity, although he did not think they could complain of a want of prosperity. He believed they had now attained that position in the public estimation which they which he need not further urge. (Hear, hear.)

The proceedings then terminated.

Contribution towards a History of Electro-Metallurgy, establishing its Origin. By HENRY DIRCKS, Civil Engineer. London: E. and F. N. Spon. 8vo., 1863, pp. 120.

The modern art of electro-metallurgy was jointly pursued by Mr. C. J. Jordan in London, Mr. T. Spencer in Liverpool, and Prof. Jacobie in St. Petersburg, in 1839. But until the publication by Mr. Jordan of his process, in the *Mechanics Magazine*, on June 8, 1839, the art of either engraving or electrotyping was unknown to the public.

Mr. Jordan's letter was dated May 22. Meanwhile, Prof. Jacobie seems to have been known in St. Petersburg some portion of his experiments. And still later, that is on Sept. 12, Mr. Spencer read a paper on the subject before the Liverpool Polytechnic Society, for which he received a prize of 10l. He had as early as May 9 stated in writing that he would describe a process he had, which he believed to be similar to that published circumstances, Mr. Spencer never came to be considered as the true and first inventor; and still stronger must it appear that he should have enlisted the late editor of the *Mechanics Magazine* so much in his favour as entirely to overlook Mr. Jordan.

All these circumstances Mr. Dircks has been at considerable pains to explain, and has successfully dealt with the tangled yarn he undertook to unravel. The work is mainly a reprint of the original papers as they appeared in 1844, with some additional matter. It appears by an address read by Mr. Spencer in December, 1851, at Liverpool, that he not only adhered to his claim, but dated his invention from May 9, 1839. He, however, abstained from giving any proof, but Mr. Dircks here publishes a copy of that assumed process at a future day, which promise he fulfilled four months afterwards. This succinct and clear historical narrative its author has dedicated to Mr. Faraday, in evident sincerity of purpose; indeed, it is clear in the face of it that Mr. Dircks could have no personal motive in the design of such a work, the truthfulness of which was warmly admitted by the late much respected editor, Mr. J. Clinton Robertson, Dr. Ure, Mr. Shaw, and indeed, all eminent authorities on the subject. In his introduction Mr. Dircks has, clearly stated the claims of invention, and briefly discussed the only just grounds that can give claim to priority of invention; a subject which his long professional experience must have made him exceedingly familiar with.

THE ANCIENT BRITISH TIN TRADE.

The tin trade being an important branch of our national industry at the present day, naturally causes much interest to attach to anything concerning its early history. It is, therefore, with much pleasure that we refer to the carefully-written little volume—the *Cassiterides*: an enquiry into the commercial operations of the Phœnicians in Western Europe, with particular reference to the British tin trade—just issued through Messrs. Longman and Co., by Dr. George Smith, of Treva, Camborne, although our views upon the subject are diametrically opposed to those of the author. Dr. Smith displays a vast amount of research, and although we incline to, and even go beyond, the opinions of Mr. Cooley and Sir G. C. Lewis, rather than to his, we would not attempt to deny that he has supplied, in the work before us at least, some "apology for those who, like him, still entertained old-fashioned notions on the subject." Dr. Smith has placed himself in the position of a barrister, whose client is evidently wrong, but who succeeds so admirably in his pleading that even his opponents are compelled to recognise his ability.

In stating the position which Dr. Smith defends, we afford our readers ample information from which to infer the authorities he quotes, and the nature of his quotations, and it becomes unnecessary for us to enumerate the various towns, the imports and exports of which, at the remote times under consideration, he so carefully gives us. Dr. Smith very truly observes that "quotations of this kind do not admit of very clear and ample proof," but we think he might also add that circumstantial evidence upon the point is not very difficult to collect. The first object sought is to prove by "The Periplus of the Erythraean Sea" of Arrian the merchant that tin was carried from Egypt down the Red Sea, small quantities of that metal being imported at Abailier, close to the Straits of Bab-el-Mandeb; and that tin was an article of import, and not of export, both at Baragaza and Nekunda; but there is no proof in these facts that the tin sent from Egypt was supplied from Britain, nor even that Egypt was supplied with tin from the West at all. But perhaps Dr. Smith's most unhappy allusion is to the internal Phœnician tin trade, taken with other circumstances, it will be apparent that it proves that the Phœnicians could not have traded with Britain. Dr. Smith tells us that "tin must have been largely imported into Phœnicia at least as early as B.C. 1500; and to this conclusion all the accounts tend. If tin was used in articles of the most elaborate design and manufacture prior to the Trojan war, then, as there was no supply of this metal as far as we can learn, from the East, there must have been a known market from whence it was procured." Now, as we can no more suppose that the Ancient Britons who inhabited our island 1500 years before the Christian era were capable of systematic mining on their own account than that the aborigines of New Zealand, Australia, or the Sandwich Islands would be enabled to do so at the present day, therefore we must make another supposition—that the Phœnicians established regular colonies in Britain, in order that such Phœnician colonists might supply the home market with tin. But this supposition is untenable, for, as Dr. Smith tells us, "all our sources of information agree in placing the Phœnician tin market at Gades for several centuries before B.C. 1100, when it may be regarded as in great prosperity;" consequently Phœnician colonies sufficiently large to enable the tin miners alone to supply at least Egypt, Arabia, India, and the eastern coast of Africa, must have had a continued existence for four hundred years—a time exceeding the period since the Spaniards and Portuguese entered South America; and about double as long as the Anglo-Saxon race has been in North America; yet we are asked to believe that the Phœnicians left no trace of their manners or customs, but permitted the ancient British aborigines to remain uncontaminated by contact with them, and to retain their Celtic language unaltered with anything Phœnician; though we doubt whether anyone would be bold enough to suppose that the aboriginal Australian will ever extinguish the tautonic dialect in Australia, or that the dialect spoken by the Incas will ever be revived in South America.

These considerations alone, though there are many others equally conclusive, we may at once abandon the notion that the Phœnicians obtained their tin from Britain, and we opine that the earliest period at which that metal reached the Mediterranean from Britain was certainly after the Romans had visited the island: we believe that the Romans are as much entitled to the credit of having opened the British tin mines, or stream-works, as we are ourselves to that of developing the auriferous resources of Australia, or of making known the commercial value of titaniferous ironstone, the chrome iron, or the other mineral resources of New Zealand.

The ANNUAL REVIEW OF MINING, containing official returns for the year from about 200 mines, and a vast amount of interesting information, valuable to investors and speculators, is now ready, and can be had (price 1s.) of Messrs. Watson and Cull, St. Michael's-alley, Cornhill; at the *Mining Journal* office, 26, Fleet-street, E.C.; or of any bookseller or newsmen.

Royal School of Mines, Jermyn Street.

ROYAL SCHOOL OF MINES, JERMYN STREET.—THE FOLLOWING COURSES OF LECTURES are about to be COMMENCED:—THIRTY LECTURES ON PHYSICS, by Prof. TYNDAL, F.R.S., to be delivered on every week-day but Tuesday, at Ten A.M., commencing on the 16th February. Fee for the course, £3.

THIRTY-SIX LECTURES ON APPLIED MECHANICS, by Prof. WILLIS, M.A., F.R.S., to be delivered on every week-day but Saturday, at Twelve, commencing on the 16th February. Fee for the course, £3.

THIRTY LECTURES ON GEOLOGY, by Prof. RAMSAY, F.R.S., to be delivered on Mondays, Tuesdays, Wednesdays, and Thursdays, at Half-past One, commencing on the 16th February. Fee for the course, £3.

WHEAL FORTESCUE MINE, ADJOINING THE DEVON GREAT CONSOLS.—WANTED, FIVE HUNDRED OR ONE THOUSAND SHIRES. Sellers will please send number and lowest price to Mr. W. B. HARVEY, 11, St. Michael's-terrace, Plymouth. Capitalists, before investing in dividend or speculative mines, would do well to consult the above.

GUNPOWDER WORKS—MANAGER WANTED.—A GENTLEMAN of education and business habits, who either has a practical knowledge of the manufacture of gunpowder, or has a fair acquaintance with chemistry, is REQUIRED TO TAKE THE RESIDENT MANAGEMENT OF A GUNPOWDER WORK in the HIGHLANDS. As it is a post of great trust and responsibility, and as a good salary will be given (including an excellent house and garden), no one whose character will not bear the strictest enquiry need apply.—A married man will be preferred.—Applications, with references and testimonials, to be made to JAMES H. BUTLER, Esq., of Gracechurch-street, London.

ON SALE, ONE 100 horse power HIGH PRESSURE HORIZONTAL ENGINE, nearly new; ONE 50 in. cylinder PUMPING ENGINE; TWO TWO-FLUED BOILERS, 32 ft. long, 8 ft. diameter; THREE ditto, 30 long, 7 ft. diameter; TWO ONE-FLUED BOILERS, 14 ft. long, 5 ft. diameter. Also several egg-end BOILERS, and several HIGH PRESSURE and CONDENSING PUMPING and WINDING ENGINES of various sizes and descriptions, particulars and prices of which will be forwarded on application to Mr. Fox, 15, St. Ann's-square, Manchester.

FOR SALE, BY PRIVATE CONTRACT, THE WHOLE or a PORTION of a VALUABLE GOING COLLIERY in the SOUTH YORKSHIRE COAL FIELD, with extensive water communication.—Particulars may be known on application to Messrs. WOODHOUSE and INCE, mining engineers, Derby; or to Messrs. NEWMAN and SONS, solicitors, Barnsley, February 2, 1863.

NOTICE OF REMOVAL.—In consequence of the house, No. 30, Strand, being suddenly required by the Charing-cross Railway Company, Mr. WHITTON ARUNDELL has REMOVED his office to No. 11, WATERLOO PLACE, Pall Mall.

MR. E. GOMPERS, MINING OFFICES, 12, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.; BUSINESS TRANSACTIONS IN BRITISH FOREIGN STOCKS AND SHARES. Terms, 1½ per cent.—Banks: London and Westminster Bank.

MR. THOS. THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C. Mr. Thompson has the means of obtaining the very first information, and is fully capable of giving the best advice, either for investment or speculation.

INVESTMENT.—MR. THOMAS SPARGO, STOCK, SHARE, AND MINING BROKER, Nos. 224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C., publishes, every Wednesday, a GUIDE TO BRITISH AND FOREIGN MINING, and OTHER INVESTMENTS, which should be consulted by all capitalists. Post free on receipt of six stamps.

RICHARD CLIFT, MINE SHAREDEALER, late of Redruth, now 48, THREADNEEDLE-STREET, LONDON, where all letters are to be addressed.

MR. H. WADDINGTON, MINING AND SHAREBROKER, 74, OLD BROAD STREET, LONDON, E.C. MINING SHARES BOUGHT and SOLD at the usual commission. RAILWAY, BANK, and OTHER SHARES at Stock Exchange rates.

MR. EDWARD BREWIS, STOCK, SHARE, AND MINING BROKER, (ESTABLISHED 1857.) OFFICES.—49, GREY STREET, NEWCASTLE-ON-TYNE. BUYER of Nether Heath shares, and also Harwood; sellers will please state lowest price and number.

JOHN GLEDHILL AND CO., MINE AGENTS AND SHAREBROKERS, MINING OFFICES, CORN EXCHANGE, LEEDS.

MESSRS. A. FRANCIS AND SON, DOLGELLY, and GOGINAN. MINES INSPECTED and FAITHFULLY REPORTED ON, with PLANS and SECTIONS of the WORKS.

JAMES H. COCK, MINE SHAREBROKER AND DEALER, REDRUTH, CORNWALL. J. H. Cock, having had 10 years' experience in the mining market, and being thoroughly acquainted with mines and their management, is in a position to advise or do business on the most advantageous terms. Cash or time bargains promptly attended to.

MR. T. H. ANDREW, MINE BROKER, LELANT, HAYLE, CORNWALL. Business at all times in Providence, East Providence, Margaret, Kitty (Lelant) Tren-crom, St. Ives, Trelyon, Rosewarne Conals, Rosewarne Hill, &c.

CAPT. JOSEPH WEBB, REDRUTH, CORNWALL, begs to inform his mining friends and the public generally that he now UNDERTAKES THE INSPECTION OF MINES. Capt. Webb's long experience in mining in all its departments is the best guarantee of his ability in such matters, and he trusts that, by carefully examining the mines he visits, he will be able to give them correct ideas of their position and prospects. In all cases of tin mine inspections, actual samples will be taken from all the most important points of operation, and carefully assayed.

MINES IN AUSTRALIA.—THE ADVERTISER, who POSSESSES a very IMPORTANT MINERAL PROPERTY in SOUTH AUSTRALIA, is DESIROUS TO HAVE IT INSPECTED and REPORTED ON by a PERSON THOROUGHLY QUALIFIED, by geological knowledge and practical mining experience, to perform that service. Communications from any such geologist and miner who is about to proceed to Australia, or from anyone who can recommend to the advertiser such a person already in the Australian colonies, will receive immediate attention.—Address, "C. A. B.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

MINE MANAGER.—A superior MINE AGENT is REQUIRED as MANAGER of the PROSPER UNITED MINES. He must engage to devote the whole of his time and energies to the duties of his office at these mines. Salary, 14 guineas per month.—Applications, with testimonials, to be sent to Mr. C. W. WEAVER, the purser, 24, Southey-street, Exeter, on or before the 11th of February. Dated January 30, 1863.

WHEAL BASSETT AND GRYLLS, WENDRON.—WANTED, an UNDERGROUND AGENT for the above mine. Applications to be made to the PURSER, Helston, on or before the 15th February next.—Helston, 31st January, 1863.

STEAM ENGINE.—WANTED TO PURCHASE, a SECOND HAND ENGINE, for pumping and winding, of about from 24 to 30 in. cylinder.—Apply by letter, stating price and particulars, to the SECRETARY, East Java Silver-Lead Mine, No. 3, Cannon-street, London, E.C.

WANTED, in an office in London, in the MERCHANT IRON TRADE, a respectable man, as SECOND CLERK. It is necessary he should thoroughly understand the business in every branch, and possess good testimonials for honesty, &c.—Address, "R.," Jerusalem Coffee-house, Cornhill, London.

WANTED TO BUY, for cash, 20 Stray Park, 100 Kelly Bray at 12s. 6d., 70 South Miners at 8s.—Address, "E. L.," Post-office, Dukinfield.

THE ADVERTISER, who has had considerable experience in the working of thick and thin coal and ironstone mines, is DESIROUS of MEETING with a SITUATION as an ASSISTANT, or COLLIERY CLERK, if necessary.—Address, "F. Q.," Post-office, Wolverhampton.

SLATE QUARRY.—A GENTLEMAN in DEVONSHIRE, in a district where there is a great demand for slate, having, as he is advised, an EXTENSIVE QUARRY on his estate, close to the surface, is DESIROUS of WORKING the SAME, and would admit to a third share of the profits, for 21 years, anyone who is willing to expend £200 in sinking and laying open the ground for the purpose of the development of the quarry.—Address, "Viator," MINING JOURNAL office, 26, Fleet-street, London, E.C.

A GENTLEMAN has a VACANCY for TWO RESPECTABLE and WELL EDUCATED YOUTHS as APPRENTICES to the MINING ENGINEERING PROFESSION. This is an excellent opening for young gentlemen to gain experience in viewing, surveying, and valuing coal and lead mines in North Wales.—Apply to ISAAC SHONE, Esq., Wrexham.

A GENTLEMAN of large experience in the manufacture of iron, and a good knowledge of mining operations, is DESIROUS of a SITUATION as MANAGER of an IRONWORKS. Good references can be given.—Address, "F. Q.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

THE METAL TRADE.—A GENTLEMAN, representing a London and Wolverhampton firm, WISHES for an AGENCY to SELL TIN, TIN-PLATES, BAR and SHEET IRON, &c. Has a good connection among consumers and ironmongers in London, Kent, Surrey, Sussex, Essex, and Middlesex.—Address, "A. Z.," C. P. Pool's, 6, Barge-yard, Bucklersbury, London, E.C.

TO COAL OWNERS AND COLLIERY PROPRIETORS.—A GENTLEMAN who has had upwards of 20 years' experience in the commercial management of collieries in the North and Midland Counties, is DESIROUS of MEETING with a SITUATION in that capacity. Satisfactory reference can be given.—Address, "E. L.," 29, Corn-street, Bristol.

TO COAL AND IRONMASTERS.—One of perfect respectability, and of 20 years' experience in the MANAGEMENT of COAL and IRONWORKS for leading parties in several districts, having "won" more seams and erected more ironworks than any other man, is OPEN to EMPLOY.—Address, "T. B.," 3, Bank-street, Sheffield.

COPIAPO EXTENSION RAILWAY COMPANY (PABELLON AND CHANARILLO RAILWAY), incorporated under the Law of Chile.—Notice is hereby given, that a MEETING of the shareholders will be HELD at the office of the company, No. 2, New Broad-street, on FRIDAY, the 20th day of February inst., at Two o'clock precisely, for the purpose of receiving a report from the directors, and the audited accounts to the 30th June last; and for filling up a vacancy in the direction, and electing two directors in the room of those retiring by rotation. The directors' report and accounts may be obtained on application at the office of the company, four days prior to the meeting. By order, EDWARD J. COLE, Sec.

DRAKE WALLS MINING COMPANY.—Notice is hereby given, that a GENERAL MEETING of the shareholders in this company will be HELD at these offices on TUESDAY, the 10th Feb. next, at Two o'clock P.M. precisely. By order, HIRAM WILLIAMS, Sec.

GREAT WHEAL ALFRED MINE.—Notice is hereby given, that the committee have convened a MEETING of the shareholders, to be HELD at the London Tavern, B. shopgate-street, London, on WEDNESDAY, the 11th day of February next, at Two o'clock, for the purpose of receiving a statement of accounts, showing the winding-up of the company, so far as it has proceeded, and to pass resolutions thereon. By order of the Committee, DAVID COHEN, Sec.

RIVER TAMAR COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of this company will be HELD at the offices of the company, upon TUESDAY, the 17th inst., at Half-past Two o'clock precisely. 1.—To take into consideration any proposition which may be made for sub-letting the mine, and of passing any resolution thereon. 2.—To take into consideration the expediency of winding-up the company, and of passing any resolution thereon. By order of the Board, 10a, King's Arms-yard, Moorgate-street, London, February 2, 1863.

CLARENDON CONSOLIDATED MINING COMPANY OF JAMAICA (LIMITED).—Notice is hereby given, that the ANNUAL GENERAL MEETING of the Clarendon Consolidated Mining Company of Jamaica (Limited), will be HELD at the offices of the company on FRIDAY, the 20th day of February inst., at One o'clock precisely, in conformity with the terms of the Company's Deed of Settlement. And notice is hereby further given, that the transfer books of the company will be closed from the 7th to the 20th February, both days inclusive. By order of the board, JOHN H. KOCH, Sec.

TO THE SHAREHOLDERS OF THE COMPANY OF PROPRIETORS OF THE ROYAL CONSOLIDATED COPPER MINES OF SAN FERNANDO, CUBA (LIMITED).—Notice is hereby given, that a GENERAL MEETING of this company will be HELD at the London Tavern, B. shopgate-street, London, on WEDNESDAY, the 25th day of February inst., at Two o'clock precisely, to consider an account of the state of the company's affairs, and the progress that has been made in the winding-up, and a report of the liquidators thereon; and also to fix the amount of remuneration to be paid to the liquidators.

CUNNE BORTHWICK, THOMAS CLOSE, WALTER SHARP, W. D. STARLING, } Liquidators. Dated February 2, 1863.

CAPE COPPER MINING COMPANY (LIMITED).—Notice is hereby given, that the CERTIFICATES OF SHARES of this company MAY BE OBTAINED at the company's office on and after THURSDAY, the 5th inst., between the hours of Eleven and Three o'clock, in exchange for the receipts given by the bankers, and upon signing the Articles of Association. By order of the Board, VERNON VENABLES, Sec.

THE RAMSAY LEAD MINING AND SMELTING COMPANY (LIMITED). The Directors hereby give notice, that NO FURTHER APPLICATIONS FOR SHARES in the above company will be RECEIVED AFTER MONDAY, the 9th. inst. F. HENDERSON GRIEVE, Sec. pro tem.

Temporary Offices, 17, Abchurch-lane, E.C.

FORM OF APPLICATION FOR SHARES. To the Directors of the Ramsay Lead Mining and Smelting Company (Limited). Gentlemen.—Having paid to your bankers the sum of £1, being a deposit of 5s. per share, I hereby accept such shares, or any less number which may be allotted to me, subject to the Articles of Association; and I further request that my name may be placed on the register of shareholders for the shares so allotted.

Name in full..... Address..... Profession or business..... Date..... 1863.

THE EAST CAMBRIAN GOLD MINING COMPANY (LIMITED), MERIONETHSHIRE. Capital, £250,000, in 50,000 shares of £5 each. Deposit, 5s. per share on application, and 5s. on allotment.

DIRECTORS. CHAIRMAN—Lieut.-Gen. Sir F. M. SMITH, M.P., F.R.S. J. HOPGOOD, Esq. F. LASCELLES, Esq. Lieut.-Col. MONEY. BROKERS—Sir Robert W. Carden and Son, 2, Royal Exchange-buildings. This mine is bounded by the Prince of Wales and Cambrian, whose respective shares, with £2 12s. and £1 paid, sell for £26 and £1 10s.

T. A. BENDISH, Esq., F.R.S., mentions this mine before the British Association at Cambridge, and a delegation of directors, after a personal visit, have expressed entire confidence in its prospects. Assays produce from 4 dwts. (at surface) to 8 oz. of gold per ton. The debris of the levels on being washed yields visible gold. The vendors are so satisfied with its prospects, that they have left the arrangements for payment to the absolute discretion of the directors.

Prospectuses, reports, and application forms for shares may be had of the brokers or secretary, S. TAYLOR, Esq., 27, Bucklersbury.

THE COTTON PLANTATION COMPANY OF NATAL

(LIMITED).
Incorporated with Limited Liability, under the Companies Act, 1862.
Capital £150,000, in 15,000 shares of £10 each, of which 6000 (including 3000 paid-up shares taken in part payment of land) are already placed.
(With power to increase).

Deposit, 10s. per share on application; and 20s. per share on allotment.
Future calls will not exceed 20s. per share, at intervals of not less than three months.

DIRECTORS.
THOMAS BARNES, Esq., M.P., Farnworth, near Manchester, Lancashire, Member of the Council of the Cotton Supply Association, and Director of the Lancashire and Yorkshire Railway Company.

P. G. VANDER BYL, Esq., late of the firm of Messrs. Porter, Vander Byl, and Co., Cape Town.

EUGENE COLLINS, Esq., Merchant, 9, Gracechurch-street.

J. K. CROSS, Esq., Cotton Spinner, Bolton, Lancashire.

HENRY DUNLOP, Esq., Chairman of the Chamber of Commerce, Glasgow, and Member of the Council of the Cotton Supply Association.

FREDERICK GRAY, Esq., M.P., 7, Cork-street, Burlington-gardens.

SAMUEL HENRY HINDE, Esq., (of the firm of Messrs. Hinde and Gladstone), 11, New Broad-street.

Capt. HORNBY, R.N., Knowsley, Lancashire.

ELIAS DE PASS, Esq., Merchant, 9, Fenchurch-street.

MARTIN SWINDELLS, Esq., (of the firm of Messrs. Brooke and Swindells, Cotton Spinners), Bollington, near Macclesfield.

ROBERT TAYLOR, Esq., (late of the firm of Messrs. Roberts, Taylor, and Newton, of Manchester), Palace Club Chambers, King-street, St. James's.

(With power to add to their number).

BANKERS.
London The Bank of London, Threadneedle-street.
Liverpool The Bank of Liverpool.
Manchester Messrs. Lloyd, Entwistle, and Co.

SOLICITORS.
Messrs. Dawes and Sons, 9, Angel-court, E.C.

BROKERS.
London Lewis H. Haslewood, Esq., 7, Lothbury.
Liverpool Messrs. Todd and Ashton.
Manchester Henry Rawson, Esq.
Glasgow Messrs. McEwan and Auld.

ACCOUNTANTS.
Messrs. Coleman, Turquand, Youngs, and Co., 16, Tokenhouse-yard, E.C.

SECRETARY.—H. W. Wood, Esq.

MANAGER AT NATAL.—Henry Milner, Esq.

OFFICES.—9, GRACECHURCH STREET, LONDON.

This company is formed for the purchase of land and the cultivation of cotton in the colony of Natal, which offers, in soil, climate, labour, and facilities for shipment, the most favourable conditions for abundant and profitable production, detailed particulars of which are given in the prospectus.

Copies of prospectuses, official reports, and other information may be obtained of Mr. H. W. Wood, the secretary, at the company's office, 9, Gracechurch-street, E.C., to whom, or to the brokers of the company, applications for shares should be addressed.

LONDON AND COUNTY BANKING COMPANY.

Subscribed capital, £1,500,000, in 30,000 shares of £50 each.
Paid-up capital, £590,000. Reserve fund, £175,000.

DIRECTORS.
THOS. TYRINGHAM BERNARD, Esq., M.P.
FREDERICK HARRISON, Esq.
PHILIP PATTON BLYTH, Esq.
EDWARD HUGGINS, Esq.
JOHN WILLIAM BURMESTER, Esq.
WILLIAM CHAMBERLAIN JONES, Esq.
COLES CHILD, Esq.
JAMES LAMING, Esq.
HUGH C. E. CHILDERS, Esq., M.P.
WILLIAM LEE, Esq., M.P.
JOHN FLEMING, Esq.
WILLIAM NICOL, Esq., M.P.

GENERAL MANAGER.—William McKewan, Esq.
CHIEF INSPECTOR.—W. J. Norfolk, Esq.
ASSISTANT GENERAL MANAGER.—William Howard, Esq.
CHIEF ACCOUNTANT.—James Gray, Esq.
INSPECTORS OF BRANCHES.—J. Tulloch, Esq., and G. A. Addison, Esq.

HEAD OFFICE.—21, LOMBARD STREET.

At the ANNUAL MEETING of the proprietors, held on Thursday, the 5th February, 1863, at the London Tavern, Bishopsgate-street, the following report, for the year ending 31st December, 1862, was read by the secretary.

WILLIAM NICOL, Esq., M.P., in the chair.

REPORT.

The directors, in submitting to the proprietors the accounts of the bank for the half-year ending 31st December last, have to report that, after making ample provision for bad and doubtful debts, including some unusual charges which had fallen on the half-year, interest to customers, expenses of management, rebate and income tax, the net profit amounts to £44,554 4s. 6d., which, added to £776 16s. 7d. brought forward, results in a total of £45,331 1s.

From the above sum the directors recommend that the usual dividend of 6 per cent. be declared, together with a bonus of 1½ per cent., making in all 12½ per cent. for the year.

This arrangement leaves £1483 2s. 3d. to be carried forward to profit and loss new account.

Frederick Harrison, Esq., lately one of the auditors, has been unanimously elected to a seat at the board. This creates a vacancy in the office of auditor, which it is competent to the meeting to fill up.

The directors retiring by rotation are—Wm. Nicol, Esq., M.P., James Laming, Esq., M.P., and Thomas Tyingham Bernard, Esq., M.P., all of whom are eligible for re-election, and offer themselves accordingly.

The dividend will be payable at the head office, or at any of the branches, on and after Monday, the 16th inst.

BALANCE-SHEET OF THE LONDON AND COUNTY BANKING COMPANY, DEC. 31, 1862.

DR.—Capital paid-up £ 590,000 0 0
Reserve fund 175,000 0 0
Amount due by the bank for customers' balances, &c. £7,151,136 6 6
Liabilities on acceptances and endorsements by the bank, circular notes, and letters of credit 366,368 3 5 = 7,517,504 9 11
Profit and loss balance brought from last account 776 16 7
Gross profit for the half-year, after making provision for bad and doubtful debts 144,312 8 9 = 145,089 5 4
Total £8,435,968 15 3

CR.—Cash on hand at head office and branches £ 981,959 7 4
Cash placed at call and at notice £2,141,229 1 8
Investments, viz.—
Government and guaranteed stocks 651,895 5 5
Other stocks and securities 103,913 15 10 = 755,809 1 3
Discounted bills, notes, and temporary advances to customers in town and country 5,083,758 16 8
Advances to customers on special securities 261,963 7 = 5,345,722 4 3
Freehold premises in Lombard-street and Nicholas-lane, freehold and leasehold property at the branches, with fixtures and fittings 104,724 3 2
Interest paid to customers 26,564 10 0
Salaries and all other expenses at head office and branches, including income tax on profits and salaries 63,119 14 3
Total £8,435,968 15 3

PROFIT AND LOSS ACCOUNT.

DR.—Interest paid to customers £ 26,564 10 8
Expenses, as above 62,119 14 3
Rebate on bills not due, carried to new account 11,273 15 5
Dividend of 6 per cent. for the half-year 35,078 7 0
Bonus of 1½ per cent. 8,769 11 0
Balance carried forward 1,483 2 3
Total £ 145,089 5 4

CR.—Balance brought forward from last account £ 776 16 7
Gross profit for the half-year, after making provision for bad and doubtful debts 144,312 8 9
Total £ 145,089 5 4

We, the undersigned, have examined the foregoing balance-sheet, and have found the same to be correct. Signed, HENRY OVERTON, JOHN WRIGHT, Auditors.
London and County Bank, January 29, 1863.

The foregoing report having been read by the secretary, the following resolutions were proposed and unanimously adopted:—

1. That the report be received and adopted, and printed for the use of the shareholders.

2. That a dividend of 6 per cent. be declared upon the capital stock of the company for the half-year ending the 31st December, 1862, together with a bonus of 1½ per cent., both clear of income tax, payable on and after Monday, the 16th February inst., and that the balance of £1483 2s. 3d. be carried forward to profit and loss new account.

3. That the thanks of this meeting be given to the board of directors for the able manner in which they have conducted the affairs of the company.

4. That the thanks of the meeting be presented to the auditors of the company for their services during the past year, and that Henry Overton and John Wright, Esqs., be re-elected auditors for the current year.

5. That Richard Hinds Swaine, Esq., be elected an auditor of the London and County Banking Company for the current year.

6. That the thanks of this meeting be presented to William McKewan, Esq., the general manager, and also to the principal and other officers of the establishment, for the zeal and ability with which they have discharged their respective duties.

The election of three directors having been proceeded with, the following gentlemen were unanimously re-elected:—William Nicol, Esq., M.P., James Laming, Esq., and Thomas Tyingham Bernard, Esq., M.P. Signed, W. NICOL, Chairman.

The Chairman having quitted the chair, it was resolved, and carried unanimously, that the cordial thanks of this meeting be presented to William Nicol, Esq., M.P., for his able and courteous conduct in the chair.

Signed, W. C. JONES, Deputy-Chairman.
Extracted from the Minutes.
Signed, F. CLAPPISON, Secy.

LONDON AND COUNTY BANKING COMPANY.

Notice is hereby given, that a DIVIDEND on the capital stock of the company of SIX PER CENT. for the half-year ending 31st December, 1862, with a BONUS of ONE AND A HALF PER CENT., will be PAID to the proprietors, either at the head office, 21, Lombard-street, or at any of the company's branch banks, on and after MONDAY, the 16th instant.

By order of the Board. W. M'KEWAN, General Manager.
No. 21, Lombard-street, Feb. 6, 1863.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Devon.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the DUKE MINING COMPANY.—Notice is hereby given, that a PETITION for WINDING-UP the ABOVE-NAMED COMPANY by the Court was, on the 28th day of January inst., presented to the Vice-Warden of the Stannaries by John Bayly, a creditor of the said company, and that the said petition is directed to be heard at the next sittings of this Court, to be held at Truro, Cornwall, on Friday, the 13th day of Feb. next, at One o'clock in the afternoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to the Secretary of the Vice-Warden, P. P. Smith, Esq., Truro, Cornwall. Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner or his solicitor, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's office, Truro, on or before Tuesday, the 10th day of February next, and notice thereof must at the same time be given to the petitioner, his solicitor, or agent.

SAMUEL CATER, Plymouth (Solicitor for the said petitioner).
HENRY SEWELL STOKES, Truro (Agent of the said solicitor).

Dated January 30, 1863.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Devon.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the DEVON GREAT ELIZABETH MINING COMPANY.—Notice is hereby given, that a PETITION for WINDING-UP the ABOVE-NAMED COMPANY by the Court was, on the 30th day of January last, presented to the Vice-Warden of the Stannaries by John Bayly, a creditor of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the sittings of the Court, to be held at Truro, on Monday, the 16th day of February inst., at Two o'clock in the afternoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro. Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner or his solicitor, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's office, Truro, on or before Saturday, the 14th day of February inst., and notice thereof must at the same time be given to the petitioner, his solicitor, or agent.

SAMUEL CATER, Plymouth (Solicitor for the petitioner).
HENRY SEWELL STOKES, Truro (Agent of the said solicitor).

Dated February 3, 1863.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the NEW WHEEL FRANCIS MINING COMPANY.—Notice is hereby given, that a PETITION for WINDING-UP the ABOVE-NAMED COMPANY by the Court was, on the 30th day of January last, presented to the Vice-Warden of the Stannaries by William Semmons, a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the sittings of the Court, to be held at Truro, Cornwall, on Monday, the 16th day of February inst., at Two o'clock in the afternoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or agent, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro. Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner or his solicitor, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's office, Truro, on or before Saturday, the 14th day of February inst., and notice thereof must at the same time be given to the petitioner, his solicitor, or agent.

PAUL AND LINTON, Plymouth (Solicitors for the petitioner).
HENRY SEWELL STOKES, Truro (Agent of the said solicitors).

Dated February 3, 1863.

TO MINE CAPITALISTS.—VALUABLE OPPORTUNITY.

MESSRS. OLVER AND SONS are favoured with instructions to **SELL BY AUCTION**, on Thursday, the 12th day of February next, at noon, at the counting-house, on the mine, the whole of that well-known and VALUABLE MINE, known as **WHEEL LOVELL**, situate in the parish of WENDRON, in the county of CORNWALL.

The mine will be offered in one lot, including the whole of the **ENGINES, PLANT, MACHINERY, and MATERIALS**, as the same are now at work, including—
A 50 in. cylinder PUMPING ENGINE, with the THREE BOILERS.
A 24 in. STAMPING ENGINE, for 24 heads.
A 1½ in. steam winch, 200 ft. of pitwork of various sizes. Also, the whole of the tin ladders and alms.

Lithograph plans of the mine are in preparation, and will be ready in a few days, which may be had, together with printed reports of the present condition and prospects of the mine recently made by competent inspectors, from which it will be seen this auction offers a valuable opportunity to mine adventurers of making more than ordinary return for their capital.

Application for plans and reports to be made to Capt. PHILLIPS, Wheel Lovell Mine, Falmouth; to the Auctioneers, Green Bank, Falmouth; or to Messrs. CARLTON and PAUL, solicitors, Truro.—Dated December 29, 1862.

SKELTON, NEAR GUISEBOROUGH, IN THE IRONSTONE DISTRICT OF CLEVELAND. VALUABLE FREEHOLD ESTATE.

MR. HENRY WATSON WILL SELL, BY AUCTION, at the house of Mr. Henry Watson, the Buck Inn, in Guisborough, on Tuesday, the 3d day of March, 1863, at Two o'clock in the afternoon, all that VALUABLE FREEHOLD ESTATE, consisting of TWO FARM HOUSES and requisite OUTBUILDINGS, and 273 acres 3 rods and 2 perches of ARABLE, MEADOW, and WOOD LAND, called **AYSDALE GATE** and **TIDKINHOW**, situate in the parish of SKELTON, in the county of YORK, and now in the occupation of Mr. Elisha Pegg.

The celebrated Cleveland Ironstone has been proved in the estate, and there is a valuable quarry of freestone.

The ironstone mines of J. T. Wharton and T. Chaloner, Esqs., immediately adjoining the above estate, are now in full operation.

The estate is three miles from the market town of Guisborough, and within 700 yards of the Cleveland Railway.

All the above premises are subject to a tithe rent charge of 20s., variable according to the Tithe Commutation Acts, and also the annual payment of 13s. 6d. for land tax.

The tenant will show the premises, and further information, with printed particulars and lithographed plans, may, after the 5th of February next, be obtained on application to Mr. RICHARD GORDON, of Crawley House, Stanhope via Darlington, mineral agent and contractor; to Messrs. SALE, WORTHINGTON, SHIPMAN, and SEDDAS, solicitors, Manchester; to P. I. BIRD, Esq., of Great North-street, London; to Messrs. WILLIAMS, LILL, and Co., of 10, Great North-street, Bedford-row, London; or at the office of Messrs. L. J., and T. SOWERBY, solicitors, Stokesley.—Stokesley, January 22, 1863.

SWALWELL IRONWORKS, NEWCASTLE-ON-TYNE, for more than 150 years in the possession of the firm of Crowley, Millington, and Co., and their predecessors, having a high reputation for the excellence of their manufactures.

MESSRS. FULLER AND HORSEY are instructed to **SELL, BY AUCTION**, on Wednesday, February 11, 1863, at Eleven for Twelve o'clock, on the premises, in One Lot, the LEASEHOLD INTEREST in and the FIXED PLANT and MACHINERY of the **SWALWELL IRONWORKS**.

These extensive works, for the manufacture of steel and steel goods, chain, ironmongery, and hardware, are situate in the village of Swalwell, about four miles from Newcastle, through which the River Tyne flows, and are supplied with water-power from a weir or dam of great extent, fed from the River Tyne, which flows through the works, and which is navigable for keels of small tonnage.

The Derwent Valley Railway, now in course of construction, will pass within a few yards of the works, and will give direct railway communication to the port of Newcastle, and to all parts of the kingdom. Coals can be obtained at 12s. per chaldron of 36 cwt.

The buildings, to which about 5 acres of ground have been appropriated, and upon which a considerable outlay has been recently made, comprise a spacious stone structure intended for a steam rolling mill. One steam-engine is fixed, and the foundations laid for a second steam-engine, and for two trains of rolls.

Adjoining the mill is the quay, with stone wharf wall and crane; numerous workshops for chain makers, file, hinge, ladle, hardware, and hammer makers, with fires and tools; chain testing house, with testing machine; IRON FOUNDRY, with cranes and cupola; STEAM ENGINE, two STEAM BOILERS and fan blast; smiths' shops, lofty and spacious turnery, with tools; STEEL FORGE, with hammers and fires; two large STEEL CONVERTING FURNACES, capable of making about 500 tons of steel annually; cast-steel house, with six pot furnaces; STEEL FORGE, with a new Morrison's patent STEAM HAMMER; with TWO ROLLERS, COKE OVENS, two IRON FORGES, with heating furnaces, cranes, hammers, and shears; and numerous other buildings, stables, &c.

Also, TWENTY-THREE DWELLING-HOUSES for workmen, with garden plots, and a depot for ashes and waste, 1 acre 1 rood 3 perches. The rentals derived from the workmen's houses are £120 per annum.

The whole of the works are held on lease for a term of 21 years, from March 25, 1855, at a rental of £320 per annum, and subject to covenants exceedingly favourable to the lessees.

To be viewed till the sale. Particulars may be had fourteen days prior to the sale, on the premises, and at the Station Hotel, Newcastle; or at the "Midland Counties Herald" Office, Birmingham; of Messrs. Vandermere, Crox, and Law, solicitors, Bush-lane, London, E.C.; of Messrs. CHARLES BROWN and DUBOIS, accountants, 10, Basinghall-street, London, E.C.; and of Messrs. FULLER and HORSEY, Billiter-street, London, E.C.

ST. HELEN'S, LANCASHIRE.

TO BE LET, ON LEASE, THE EXTENSIVE MANUFACTURING PREMISES known as the **RAVENHED COPPER SMELTING WORKS**, situate at ST. HELEN'S, with a wharf on the canal, and a branch of the St. Helen's Railway running through the property.

The entire site is about 20 acres, of which about five acres are occupied by the works, the remainder being arable and pasture land.

The buildings comprise a series of very substantially erected, light, and lofty ground floor factories, arranged for the purposes of copper and silver smelting works, but they will be available for many other large manufacturing establishments, as they possess the advantage of direct communication by rail or water carriage with all parts of the kingdom. Coals can be obtained from pits in the neighbourhood at an almost nominal price, and labour is cheap and abundant.

For particulars, apply to Messrs. FULLER and HORSEY, 13, Billiter-street, London, E.C.; and Messrs. HARRISON and FINCH, 2, Gray's Inn, London.

TO PROPRIETORS OF COLLIERIES, MINES AND OTHERS.

MR. HOWELL has received instructions to **SELL, BY AUCTION**, on Tuesday, the 17th, Wednesday, the 18th, and Thursday, the 19th days of February next, and not on the 16th, 17th, and 18th of February, as previously advertised, commencing each day at Eleven o'clock in the forenoon, at the **DEE BANK COLLIERY**, BAGILLT, near HOLYWELL, about a mile from the Bagillt station, Chester and Holyhead Railway, all the **MACHINERY, MATERIALS, UTENSILS, &c.**, consisting of an excellent HIGH PRESSURE HORIZONTAL STEAM ENGINE, with cylinder 30 in. diameter, working a 5 ft. 6 in. stroke, and connected to FOUR CYLINDRICAL STEAM BOILERS—viz., three of the boilers are 29 ft. long by 5 ft. 6 in. diameter, and one ditto 35 ft. long by 5 ft. 6 in. diameter; this engine has pumping gear attached for working three lifts of 19 in. pumps, consisting of a pair of strong spur wheels, pumping shaft, with crank. Three cast metal T. bolts, with wood connecting rods, iron strapped, with fork straps to connect to the crank; about 180 yards of 19 in. pumps, with working barrels, bucket door pieces, clack door pieces, bucket and clack shells, wrought iron bucket swords with knock-off joints, pitch pine rods, wrought iron strapping plates, screw bolts, &c.; also a DIRECT ACTING PUMPING STEAM ENGINE, with cylinder 60 in. diameter, working a 10 ft. stroke, connected with THREE CYLINDRICAL STEAM BOILERS—viz., two boilers 34 ft. 8 in. long by 5 ft. 6 in. diameter, and one ditto 35 ft. 6 in. long by 5 ft. 6 in. diameter, with all the necessary mountings; also, 75 yards of 22 in. pumps, with working barrel, bucket, door piece, clack piece, bucket and clack shells, two bucket swords with knock-off joints, pitch pine rods, and wrought iron strapping plates, with screw bolts; a STEAM CAPSTAN ENGINE with cylinder 14 in. diameter, iron barrel with gear for capstan, 1½ in. wire rope 220 yards long, shears of pitch pine 50 ft. high, also boring tools, pitch rails, assorted sizes of best rolled iron, a quantity of bricks, timber, ashlar stone, wrought and cast iron scrap, two carts, horse gear, smith's tools, screwing tackle, sundry chains, two whiskeys of wood with 11 ft. cages, single and double crank winches, portable weighing machine, circular saw table of iron, lathe with 12 in. head stocks and iron bed, and numerous miscellaneous articles of value, &c.

N.B.—THIRTY-TWO RAILWAY COAL WAGONS will be offered for sale on the one of the fore-mentioned days of sale; these wagons can be inspected at the late Haworth and Thompson's Colliery, Trydyan, near Mold.

Hawarden Ironworks, Holywell, Jan. 6, 1863.

COUNTY OF LANARK.

DUNDYVAN IRONWORKS AND OTHER PROPERTIES

FOR SALE.—There will be exposed to public sale, within the Faculty Hall, Glasgow, on Wednesday, the 18th day of March next, at Two o'clock afternoon (unless previously disposed of by private bargain),
1.—The **DUNDYVAN PIG and BAR IRONWORKS**, situated near Coatbridge, in the county of Lanark, comprising—

1.—The **PIG IRONWORKS**, consisting of EIGHT BLAST FURNACES, TWO BLAST ENGINES, MACHINERY for FILLING, RAILWAYS, WEIGHING MACHINES, CLAY MILL, and all the usual working conveniences, with an EXTENSIVE FOUNDRY, MECHANICS' SHOPS, STEAM ENGINES, and FIXED MACHINERY, counting-house, warehouse, stables, &c.

2.—The **BAR IRONWORKS**, consisting of FORTY-FOUR PUDDLING FURNACES, with a SHINGLING MACHINE; a helve, and a STEAM HAMMER, with STEAM ENGINES and FIXED MACHINERY, and THREE TRAINS OF ROLLS for making puddle and other unfinished bars. Also, FIVE FINISHING MILLS, consisting of THREE BAR MILLS and TWO PLATE MILLS, driven by STEAM ENGINES and suitable machinery, with TWELVE HEATING FURNACES, saws, shears, and other usual fixed apparatus; also, MECHANICS' SHOPS, TURNING LATHES, BUILDINGS, SHEDS, RAILWAYS, and all usual working conveniences, the whole being capable of turning out 350 tons of finished iron weekly, consisting of plates, rails, and bars in great variety.

3.—ONE HUNDRED AND FIFTY-FOUR WORKMEN'S DWELLINGS, known by the names of "Long Row," "English Square," and "Stone Row."

4.—The **LANDS OF DYKE**, with FARM BUILDINGS, STEAM ENGINE, THRESHING MILL, RAILWAY, &c., thereon.

The above subjects extend to about 35 acres imperial, and the MINERALS therein will be included, in so far as belonging to the exposer, with the MACHINERY, FITTINGS, and FIXED PLANT, at DUNDYVAN PIT.

5.—The MINERALS held in lease, consisting of DRUMPELLER, SOUTHERHOUSE, and DALZIEL COAL, and WHIFLAT and HOEHILL IRONSTONE, with the whole MACHINERY, FITTINGS, RAILWAYS, and FIXED PLANT of every kind attached thereto.

The purchaser of this lot will also be entitled to a lease, on favourable terms, of the valuable ironstone in the estate of Arden, extending to 1100 acres, or thereby, and to the option of taking at a valuation the moveable stock and utensils connected with the mines and ironworks, consisting generally of locomotive engines, horses, wagons, carts, hurleys, canal scows, &c.; and also the farm leases of Whidat and Souterhouse Farms, including implements and utensils, all as per inventories.

Lot 2.—The **LANDS OF DUNDYVAN**, extending to about 47 acres imperial, or thereby, with the BUILDINGS erected thereon, consisting of three substantial houses, known as Dundyvan Cottage, Orenock Cottage, and Muirred Cottage, a PROVISION STORE and SCHOOL BUILDINGS, together with the MINERALS in the lands, in so far as belonging to the exposer.

Lot 1 and 2 will, in the first instance, be put up as one subject, at the upset price of £63,000; if not sold together, Lot 1 will then be exposed separately, at the upset price of £35,000; and if sold separately, Lot 2 will thereafter be exposed at the upset price of £28,000.

Lot 3.—The MINERALS in the **LANDS OF CUPARHEAD** (about 21 imperial acres in extent). These are believed to contain, entire, the whole seams known in the district. The exposer has a lease of the surface of the lands, which, with the landlord's consent, may be assigned to the purchaser of the minerals. Upset price, £2500.

Lot 4.—The **ONE HUNDRED AND TWENTY-THREE WORKMEN'S DWELLINGS** situated in Buchanan-street and Plover-row. Upset price, £2500.

For further particulars, apply to Messrs. ATKIN and MACKENZIE, accountants, Glasgow; Messrs. MACKENZIE and MOORE, mining engineers there; Messrs. MELVILLE and LINDSAY, W

COLLIERIES, IRONWORKS, &c.

MR. C. STUART BARKER, MINERAL AGENT.
12, BUCKINGHAM STREET, STRAND, LONDON, W.C., has UNUSUAL FACILITIES FOR DISPOSING OF COLLIERIES, IRONWORKS, AND MINERAL PROPERTIES OF EVERY DESCRIPTION, having numerous applications from capitalists constantly on hand. Proprietors disposed to sell or let, and parties desirous of purchasing or leasing, may generally accomplish their wishes by forwarding particulars of their requirements.

FOREST OF DEAN.—VALUABLE COLLIERY TO BE SOLD in this important and rising district. It comprises 150 acres of unworked coal of very superior quality, is fitted complete with plant and machinery, and is connected by a tramway with the railway system. As a safe investment, promising ample returns, this colliery has special recommendations. For particulars, and to treat, apply to Mr. C. STUART BARKER, mineral agent, 12, Buckingham-street, Strand, London, W.C.

SOUTH WALES.—SEVERAL DESIRABLE COLLIERIES TO BE DISPOSED OF, within easy reach of the principal shipping ports. Particulars on application to Mr. C. STUART BARKER, mineral agent, 12, Buckingham-street, Strand, London, W.C.

FOREST OF DEAN.—A CAPITAL COLLIERY TO BE SOLD, comprising nearly 50 acres, and embracing numerous and valuable beds of coal. Pits have been sunk, and with a small outlay a large quantity of coal might be raised. For particulars, apply to Mr. C. STUART BARKER, mineral agent, 12, Buckingham-street, Strand, London, W.C.

FOR SALE, GREAT ONSLOW CONSOLS MINE, with ALL the PLANT and MACHINERY thereon. The mine is situated in the parish of ST. BREWARD, CORNWALL, on the western border of the Cheesewring granite formation, where the granite makes a junction with the killas. The set embraces great scope, and has three known lodes traversing its length, besides two cauter lodes intersected by the workings on the middle lode.

The north lode has not been explored, but has been cut in one place only by a shallow adit, where it is of great strength, and shows malleable copper on the back. The south adit, where it is of great strength, and shows malleable copper on the back; this lode has its course into the hill going east, in what appears a channel of semi-decomposed granite. An adit might be brought home on its course, to have about 70 fms. back, in a short distance driving.

The middle lode, to which operations have been hitherto confined, has been wrought on to a depth of 122 fms. from surface. But as the engine-shaft was commenced on the top of the hill, the real depth of the mine, if the adit were brought home, would be about 50 fms. below. The size of the lode, where laid open in the shallow levels, varies from 6 to 18 feet wide, and is composed for the most part of masses of sulphur, mende, quartz, large quantities of coal (blue-spar), peat, with copper ore scattered throughout. About 10,000 tons of copper mende and copper ore have been raised from the lode, and large quantities of mende remain discovered throughout the mine. The greatest portion of the mende raised has been made marketable and sold.

All the requisite machinery for carrying out extensive operations have been erected at great cost, and are complete and in good working order, comprising powerful hydraulic pumping engine, thoroughly efficient and commandable, with powerful winding machine and crusher; the two latter are also worked by water-power. All machinery is driven by water-power, of which there is a reserve, after the present machinery is supplied, equal in force to three 50-hp. steam engines.

The close proximity of the mine to the terminus of the Wadebridge Railway (about 1½ miles) is of great advantage for the transit of all ores to the shipping wharf at Wadebridge, the railway charge per ton being only 2s. 7d.

Relative to the prospects of the mine generally, it is considered the present workings are not deep enough to intersect the productive ground. The back of the lode shows such fine gossan as is seldom seen, under which are deposited large masses of copper mende, and below the mende operations have not yet been carried. Moreover, lodes of such size and character, having large capels, may, and sometimes do, make shallow shoots of ore, but it is in the depth of the lode and permanent mine must be looked for.

The geological arrangement of all metallic veins or lodes in this, and, perhaps, every other country that have diagonal inclinations, has this law for making their respective mineral deposits, and the exceptions, if any, are very few indeed—viz., that wherever the lode makes its deposit of mineral there it takes a direction more towards the perpendicular line, the unproductive portions of the lode being where the underlie is greatest.

In other words, if the lode in its transit through the strata make the usual bends that all lodes do (more or less), it will be found that the ore is deposited where the warp tends most towards the perpendicular line, and the most barren parts will be found where the lode has the flattest underlie. The above law has been fully borne out by facts in this mine.

The last three levels sunk have been on the course of the lode, which has taken a much flatter dip for several fathoms, both east and west of the engine-shaft, the underlie being much greater than the average underlie of the lode. The consequence was the lode directly fell off in yield; but as this flatter underlie is greater than the average, nothing can be more reasonable than its again, in turn, curving back towards the perpendicular, by taking a more vertical dip—in other words, assume its productive inclination. Then, under such large beds of copper mende, look out for courses of ore.

The water flowing from the lode in the bottom of the mine contains such a large quantity of copper in solution as is probably unparalleled in any copper mine in the country. It is considered, by highly respectable agents who have been engaged in mining in the Caradon district for many years, in some of the best mines, that Great Omslow contains the elements of a good copper mine, and that a share of the perseverance that has been required to make Phoenix what it was, and may again be, Marke Valley and East Caradon what they now are, would give it no ordinary chance of ranking with them.

It is uncertain whether one, two, or three levels more might have to be sunk before the lode would make the change alluded to above in its underlie, but it is something like a certainty that it is sure to do so in a reasonable distance, where the lode, according to the experience of practice, will likewise make its ore.

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5000	Frank Mills (lead), Devon	3 18 6	—	—	3 15 0	0 15 0
1793	Great Wh. Fortune (tin), Breage	18 0 0	33	31 32	2 2 6	0 5 0
10240	Gunnis Lake (Clitters' Adit)	0 2 0	—	—	0 3 0	0 1 6
1024	Herdaford (id.), near Liskeard [S.E.]	8 10 0	52	49 51	21 10 0	1 15 0
1000	Hibernian Mine Company	92 6 2	—	—	9 0 0	0 15 0
400	Ilsarne (lead), Cardiganshire, Wales	18 15 0	—	—	399 10 0	4 0 0
9000	Marke Valley (copper), Cardigan	4 10 6	9 1/2	8 1/2	2 6 6	0 2 6
1800	Miners Mining Co. [L.] (id.), Wrexham	2 0 0	—	—	99 18 0	7 0 0
640	Mount Pleasant (lead), Mold	4 0 0	—	—	18 18 1	0 7 6
5236	North Trekerby (copper), St. Agnes	1 0 0	—	—	0 10 0	0 8 0
5000	Orehead (lead), Flintshire	0 0 0	—	—	0 10 0	0 8 0
640	Par Consols (copper), St. Blazey [S.E.]	1 2 6	—	—	36 16 0	7 0 0
207	Parya Mines (copper), Anglesey [L.]	20 0 0	—	—	47 10 0	10 0 0
400	Phoenix (copper and tin)	—	—	—	—	—
1123	Providence (tin), Uny Lelant [S.E.]	10 6 7	44	43 44	66 5 0	1 5 0
6000	Rosewall Hill and Ransom United	2 18 0	3 1/2	—	0 8 0	0 2 6
4026	Rosewarne Consols (copper)	3 7 6	—	—	0 2 0	0 2 0
16	Rosewarne (lead)	60 0 0	—	—	1250 0 0	100 0 0
512	South Caradon (cop.), St. Cleer [S.E.]	1 0 0	40 1/2	—	396 0 0	2 0 0
512	South Toluca (cop.), Redruth, Cornwall	8 0 0	53	65 67	0 5 0	0 5 0
5000	South Exmouth (lead), Chiswick	1 0 0	—	—	365 0 0	1 0 0
496	S. Wh. Frances (copper), Illogan [S.E.]	18 9 0	92	—	0 6 0	0 6 0
500	South Woodley	—	—	—	—	—
280	Spearne Moor (tin, copper), St. Just	31 17 9	—	—	9 15 0	1 0 0
910	St. Ives Consols (cop., tin), St. Ives	8 0 0	—	—	486 0 0	0 10 0
6000	Tincroft (copper, tin), Pool, Illogan [S.E.]	9 0 0	16 1/2	16 16 1/2	11 18 0	0 5 0
1000	Trumpton Consols (tin), near Helston	11 10 0	—	—	11 0 0	2 0 0
4000	Vigra and Clogau (copper) [L.]	21 5 0	30	27 29	4 12 6	1 0 0
6000	West Bassett (copper), Illogan [S.E.]	1 10 0	13 1/2	—	23 11 0	0 5 0
1024	West Caradon (cop.), Redruth [S.E.]	2 10 0	36	33 35	101 1 5	0 10 0
256	West Damsel (copper), Gwennap	88 10 0	—	—	46 0 0	1 0 0
400	West Fowey Consols (tin and copper)	7 10 0	—	—	0 19 0	0 3 0
1024	West Penrithall	4 0 0	—	—	2 19 6	2 19 6
400	W. Wh. Seton (cop.), Camborne [S.E.]	47 10 0	295	—	368 0 0	5 0 0
512	Wheal Bassett (copper), Illogan [S.E.]	5 2 6	—	—	492 10 0	1 0 0
1000	Wheal Bassett and Grylls (tin)	7 0 0	—	—	1 0 0	1 0 0
2000	Wh. Clifford Amalgamated (cop.), Gwennap	30 0 0	22	21 23	28 6 0	0 7 6
1024	Wheal Grylls (tin), Penrithall	2 4 0	—	—	3 2 0	1 0 0
1024	Wheal Hontie (tin), St. Just	9 18 0	—	—	0 5 0	0 5 0
4000	Wh. Luddett and Wray (lead), St. Ives	2 10 0	8 1/2	9	4 19 0	0 2 6
896	Wh. Margaret (tin), Uny Lel. [S.E.]	9 17 4	—	—	75 5 0	1 0 0
100	Wheal Mary (tin), Lelant	2 5 6	—	—	284 5 0	4 0 0
1024	Wh. Mary Ann (id.), Menheniot [S.E.]	8 0 0	17	16 17	67 17 6	0 10 0
80	Wheal Owies (tin), St. Just, Cornwall	70 0 0	—	—	310 18 0	7 10 0
128	Wheal Prosper (tin), Llanivet	3 0 0	—	—	—	4 10 0
396	Wheal Seton (tin, copper), Camborne	58 10 0	245	220 225	144 15 0	3 0 0
1040	Wh. Treawny (all-id.), Liskeard [S.E.]	5 17 0	18 1/2	18 1/2	46 2 6	0 10 0

* Dividends paid every two months. † Dividends paid every three months.

MINES WITH DIVIDENDS IN ABBEYANCE.

760	Aberdovey (silver-lead), Merioneth	1 10 0	—	—	0 10 0	0 10 0
200	Cefn Cwfn Brynno (lead), Cardigan	33 0 0	—	—	9 0 0	4 0 0
286	Cundrow (cop., tin), Camborne	35 0 0	95	—	85 0 0	2 0 0
2450	Cook's Kitchen (copper), Illogan	17 0 0	32 1/2	33 34	1 7 0	0 7 0
4076	Devon and Cornwall (copper)	5 16 3	—	—	0 10 0	0 2 6
672	Ding Dong (tin), Gwilt	40 13 6	—	—	16 7 6	1 10 0
12860	Drake Wells (tin, copper), Calstock	2 1 0	2 1/2	2 1/2	0 15 0	0 1 6
4940	Fowey Consols (copper), Tywardreath	4 0 0	—	—	4 9 3	0 2 6
6000	Great Northern Consols (copper), Redruth	9 12 4	—	—	72 18 0	0 5 0
119	Great Work (tin), Gernoe	100 0 0	—	—	231 10 0	7 10 0
5000	Kelly Bray (lead, copper), Callington	4 15 6	—	—	0 6 0	0 2 6
160	Levant (copper, tin), St. Just	2 10 0	—	—	1091 0 0	5 0 0
20000	Miners Co. of Ireland (cop., lead, con.)	7 0 0	19 1/2	19 1/2	14 7 11	0 7 0
6000	New Birch Tor and Viller Cons. (tin)	1 6 0	—	—	0 3 0	0 1 0
470	Newtownards Mining Co., Co. Down	60 0 0	—	—	86 0 0	1 0 0
6000	North Downs (copper) Redruth	3 8 4	3 1/2	3 1/2	0 10 0	0 2 6
1772	Pulberron (tin), St. Agnes	—	—	—	6 19 6	0 10 0
2000	Scotridge Con. (cop.), Whitechurch [S.E.]	0 17 0	—	—	0 10 0	0 2 6
6000	Tolvadden (copper), Marazion	0 15 2	—	—	0 13 0	0 3 0
8600	Tamar Con. (all-id.), Beeralston [S.E.]	4 10 0	—	—	5 6 0	0 2 6
573	Trevelyan Consols (tin), St. Ives	12 0 0	—	—	7 0 0	0 10 0
1024	Wendron Consols (tin), Wendron	12 13 10	—	—	8 15 0	1 0 0
60	West Burton Gill (lead), Yorkshire	60 0 0	—	—	14 10 0	3 0 0
256	Wheal Buller (cop.), Redruth [S.E.]	5 0 0	—	—	229 0 0	2 0 0
128	Wheal Friendship (copper), Devon	80 0 0	—	—	2400 10 0	5 0 0
512	Wheal Jane (silver-lead), Ken	3 10 0	—	—	13 10 0	1 0 0
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	3 0 6	—	—	8 10 0	1 0 0
4296	Wheal Kitty (tin), St. Agnes	4 19 6	—	—	0 18 0	0 2 0
5000	Wicklow (copper) [L.], Wicklow	5 0 0	41 1/2	43 1/2	49 17 6	2 0 0

FOREIGN MINES.

2454	Burra Burr (cop.), South Australia	5 0 0	—	—	330 0 0	5 0 0
6000	Central American (silver) [L.]	5 0 0	—	—	2 2 0	0 14 0
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	22	21 23	98 12 0	1 0 0
13000	Copago Mining Company, Chile [L.]	16 0 0	—	—	6 18 0	0 10 0
15000	East Indian Coal, Calcutta [L.]	10 0 0	—	—	7 1/2 per cent.	—
70000	English and Australian [S.E.]	5 0 0	—	—	1 7 6	0 2 6
25000	Fortuna (lead), Spain [L.] [S.E.]	2 0 0	4 1/2	4 1/2	0 2 6	0 2 6
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	390 0 0	—	—	19 5 0	1 0 0
65000	Kapunda Mining Co., Australia [S.E.]	1 0 0	1 1/2	—	0 10 0	0 10 0
15000	Linares (id.), Pozo Ancho, Spain [S.E.]	3 0 0	—	—	8 16 2	0 5 0
6000	Lustitius (copper), S. Africa [S.E.]	2 0 0	—	—	0 9 0	0 1 0
93815	Marikana and New Granada [S.E.]	1 0 0	1	—	0 8 0	0 2 6
100000	Port Phillip (gold), Clunes [S.E.]	1 0 0	1 1/2	1 1/2	0 8 0	0 2 6
11000	St. John del Rey [L.], Brazil [S.E.]	15 0 0	57	54 56	64 15 0	4 0 0
41744	Unlt. Mexican (all-id.), Mexico [S.E.]	28 5 0	5 1/2	5 1/2	2 1 6	0 5 0
20000	West Canada Mining Company [L.]	1 0 0	—	—	0 2 0	0 2 0

FOREIGN MINES WITH DIVIDENDS IN ABBEYANCE.

10000	Altan and Quenangan (unl.) (cop.) [L.]	4 10 0	—	—	4 5 0	0 15 0
10000	El Barrier Land, Min. & N. Ze. [L.]	4 10 0	—	—	15 per cent.	—
10000	Pontgibaud (all-lead), France [S.E.]	20 0 0	—	—	1 0 0	0 10 0

NON-DIVIDEND FOREIGN MINES.

20000	Australian (copper), South Australia [S.E.]	7 7 6	—	—	—	—
20000	Beariz (tin) [L.]	0 10 0	—	—	—	—
75000	Ben Accord, South Australia (copper) [L.] [S.E.]	1 0 0	—	—	—	—
12000	Cape Copper Mining Company [L.]	2 10 0	—	—	1 1/2	1 1/2
25000	Capula (silver), Mexico [L.] [S.E.]	0 10 0	—	—	—	—
17000	Central Italian (copper) [7000 paid]	0 6 0	—	—	—	—
6000	Clarendon Consols (copper), Jamaica [S.E.]	1 0 0	—	—	—	—
10000	Copago Smelting [L.], Chile	10 0 0	—	—	—	—
100000	Don Pedro North Del Rey (gold), Brazil [L.]	0 10 0	—	—	—	—
75000	Don Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	—	—	—	—
25000	East del Rey, Brazil [L.]	1 0 0	1 1/2	1 1/2	—	—
30000	East Kongberg Native Silver Mining Co. of Norway [L.]	1 7 6	—	—	—	—
15000	Elbe Colliery Company [L.]	1 0 0	—	—	—	—
90000	Ellerslie and Bardowie, Jamaica	0 18 0	—	—	—	—
6000	English and Canadian Mining Company [L.]	5 0 0	—	—	—	—
4000	Fortune (copper), West Australia [L.]	2 0 0	—	—	—	—
90000	Great Northern Consols, South Australia [L.] [S.E.]	1 0 0	—	—	—	—
24000	Hindostan (copper), Bengal [L.]	1 0 0	—	—	—	—
4000	Hope Silver-Lead and Copper Mining Co. [L.]	25 0 0	—	—	—	—
50000	Imperial Thessalian (lead, &c.), Thessaly [L.]	0 10 0	—	—	—	—
10000	Karbitz Colliery Company [L.]	1 0 0	—	—	—	—
10000	Lagunazo (sulphur, copper), Portugal [L.]	1 0 0	—	—	—	—
100000	Montes Aureos (gold), Brazil [L.] [S.E.]	2 0 0	—	—	—	—
3000	New Burra Burr (Australia)	5 0 0	—	—	—	—
10000	New Granada (gold), South America [S.E.]	1 0 0	—	—	—	—
10000	New Grand Duchy of Baden (silver-lead), near Freiburg	1 0 0	—	—	—	—
60000	North Rhine Copper Co. of South Australia [L.] [S.E.]					

MINES WITH DIVIDENDS IN ABEYANCE.

700	Aberdovey (silver-lead), Merioneth	1 10 0	—	—	0 10 0	0 10 0	Mar. 1859
200	Cefn Cwm Brynno (lead), Cardigansh.	33 0 0	—	—	9 0 0	4 0 0	April, 1861
256	Condurow (cop., tin), Camborne	35 0 0	95	—	85 0 0	2 0 0	June, 1857
2450	Cook's Kitchen (copper), Illogan	10 9 0	32 1/2	33 34	1 7 0	0 7 0	May, 1862
4076	Devon and Cornwall (copper)	5 16 3	—	—	0 10 0	0 2 6	Feb. 1859
672	Ding Dong (tin), Gulval	40 13 6	—	—	16 7 6	1 10 0	Mar. 1857
12800	Drake Walls (tin, copper), Calstock	2 10 0	2 1/2	2 1/2	0 18 0	0 1 6	June, 1862
4340	Fowey Consols (copper), Tywardreath	0 0 0	—	—	41 3 0	0 2 6	June, 1860
6000	Great South Toluca [S.E.], Redruth	0 14 6	6 1/2	6 1/2	7 18 0	0 5 0	Dec. 1861
119	Great Work (tin), Gernoes	100 0 0	—	—	221 10 0	7 10 0	Feb. 1857
6000	Kelly Bray (lead, copper), Callington	4 15 6	7 1/2	7 1/2	0 6 0	0 2 0	Feb. 1860
160	Levant (copper, tin), St. Just	210 0 0	—	—	1091 0 0	5 0 0	May, 1860
20000	Mining Co. of Ireland (cop., lead, coal)	7 0 0	19 1/2	19 1/2	14 7 11 0	0 7 0	Dec. 1861
6000	New Birch Tor and Vitter Cons. (tin)	1 6 6	—	—	0 3 0	0 1 0	Sept. 1861
470	Newtownards Mining Co., Co. Down	60 0 0	—	—	86 0 0	1 0 0	Sept. 1858
6000	North Downs (copper) Redruth	2 4 0	3 1/2	2 3/2	0 10 0	0 2 6	May, 1862
1772	Pobberro (tin), St. Agnes	—	—	—	6 18 0	0 10 0	Dec. 1861
2000	Scotridge Cons. (cop.), Whitehurst [S.E.]	0 17 0	—	—	0 10 0	0 2 6	July, 1861
6000	Tolvadden (copper), Marazion	0 15 2	—	—	0 13 0	0 3 0	Mar. 1860
8600	Tamar Con. (all-id.), Beeralston [S.E.]	4 10 0	7 1/2	7 1/2	5 6 0	0 2 6	Jan. 1861
572	Trevelyan Consols (tin), St. Ives	12 0 0	—	—	7 0 0	0 10 0	Sept. 1860
1024	Wendron Consols (tin), Wendron	12 13 10	10 11	—	8 15 0	1 0 0	Jan. 1861
60	West Burton Gill (lead), Yorkshire	60 0 0	—	—	14 10 0	3 0 0	June, 1861
256	Wheal Buller (cop.), Redruth [S.E.]	5 0 0	—	80 90	229 0 0	2 0 0	Feb. 1861
512	Wheal Friendship (copper), Devon	60 0 0	—	—	100 10 0	8 0 0	Feb. 1861
512	Wheal Jane (silver-lead), Kew	8 0 0	—	—	13 10 0	1 0 0	Mar. 1862
1024	Wheal Kiddy (tin), Uny Lelant [S.E.]	2 0 0	—	—	8 10 0	0 10 0	April, 1862
4295	Wheal Kitty (tin), St. Agnes	4 19 6	4 1/2	4 1/2	0 18 0	0 2 0	July, 1860
5000	Wicklow (copper) [L.], Wicklow	5 0 0	41 1/2	43 1/2	43 17 6	2 0 0	Oct. 1861

FOREIGN MINES.

2464	Burra Burra (cop.), South Australia.	5	0 0 ..	—	..	..	300	0 0 ..	5	0 0	—Oct. 1862	
6000	Central American (silver) [L.]	5	0 0 ..	—	—	..	2	2 0 ..	0	14 6	—Oct. 1862	
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40	0 0 ..	22	..	21 23	..	98	12 0 ..	1	0 0	—Jan. 1862
13000	Copago Mining Company, Chili [S.E.]	16	0 0 ..	—	—	..	..	6	18 0 ..	0	10 0	—Nov. 1862
15000	East Indian Coal, Calcutta [L.]	10	0 0 ..	—	—	..	..	7 1/2	per cent.	—	Yearly.	
70000	English and Australian [S.E.]	5	0 0 ..	—	—	..	1	7 6 ..	0	2 6	—Feb. 1862	
25000	Fortuna (lead), Spain [L.] [S.E.]	2	0 0 ..	4 1/2	..	4 1/2	..	2	6 0 ..	0	2 6	—May, 1862
25000	Gen. Mining Assoc., New South Wales [S.E.]	20	0 0 ..	—	—	..	19	6 0 ..	0	1 0	—June, 1862	
60000	Kapanda Mining Co., Australia [S.E.]	1	0 0 ..	—	—	1 1/2	..	0	10 0 ..	0	10	—Sept. 1862
15000	Linares (i.d.), Pozo Auca, Spain [S.E.]	3	0 0 ..	—	—	7 8	..	8	16 0 ..	0	5 0	—Sept. 1862
10000	Lusitania (of Portugal) [S.E.]	2	0 0 ..	—	—	..	..	0	19 0 ..	0	1 0	—Feb. 1863
93815	Marquita and New Granada [S.E.]	1	0 0 ..	1	..	3 1/2	..	0	9 6 ..	0	1 6	—July, 1863
100000	Port Phillip (gold), Clunes [S.E.]	1	0 0 ..	13 1/2	..	1 1/2	..	0	8 6 ..	0	2 6	—Jan. 1863
11000	St. John del Rey [L.], Brazil [S.E.]	15	0 0 ..	57	..	54 56	..	54	15 0 ..	4	0 0	—Dec. 1862
48174	Unit. Mexican(al), Mexico [S.E.] [A.V.]	28	5 0 ..	5 1/2	..	4 3/4	..	2	1 6 ..	0	5 0	—Oct. 1862
20000	West Canada Mining Company [S.E.]	1	0 0 ..	—	—	..	..	0	2 0 0 ..	0	2 0	—Nov. 1862